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THE AMERICAN JOURNAL OF SEMITIC LANGUAGES AND LITERATURES

VOLUME XXXVIII

JULY 1922

NUMBER 4

THE ORIENTAL INSTITUTE OF THE UNIVERSITY OF CHICAGO—A BEGINNING AND A PROGRAM¹

BY JAMES HENRY BREASTED
University of Chicago

A brief announcement of the organization of the Oriental Institute in 1919, made possible by the generosity of Mr. John D. Rockefeller, Jr., has already been published by the writer in the pages of the *American Journal of Semitic Languages and Literatures* (1919, pp. 196-204). The subsequent development of the work of the Institute, a large increase in its resources likewise due to Mr. Rockefeller, and the resulting expansion of its activities, make necessary a further account of what has already been accomplished and of the program contemplated. This account is not intended to be a technical statement of results or plans, but a purely popular and preliminary presentation which will be intelligible to readers quite outside the ranks of professional orientalists. The purpose of this new organization is the expansion and maintenance of Haskell Oriental Museum of the University of Chicago, that it may serve as a laboratory for the investigation of the career of early man in the Near East, and thus furnish the teaching staff of the Department of Oriental Languages the materials and the opportunity for researches which will contribute to the recovery of the ancient civilizations whose languages are taught by the Department. The personnel of the Institute is therefore largely drawn from the teaching staff of the Department of Oriental Languages, but in addition to these members of the

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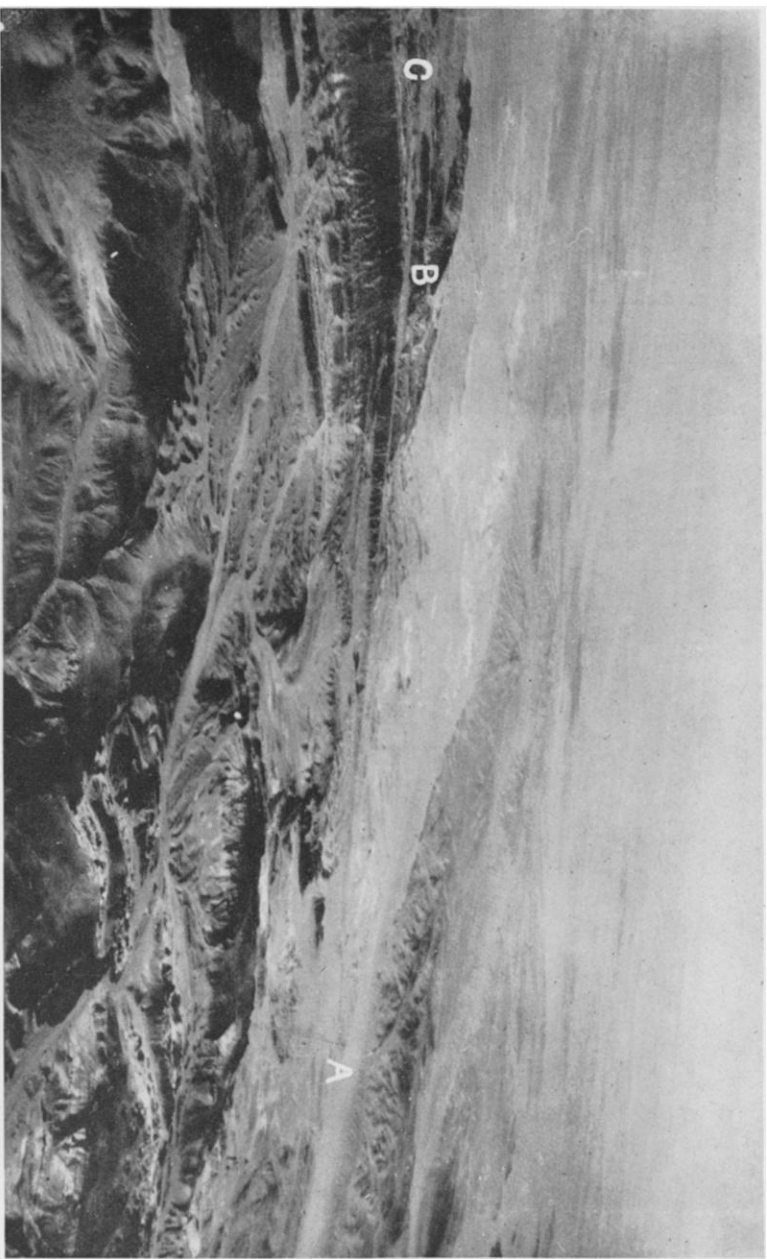


FIG. 1.—AIRPLANE VIEW LOOKING WEST ACROSS THE VAST CONSTRUCTION CAUSEWAY OF THE
DEMOLISHED PYRAMID OF ABU ROASH, EGYPT

A-B is the causeway or ramp; C is the site of the demolished pyramid. This snapshot, the first ever made by the writer from an airplane, was taken at an elevation of about a mile, at a distance of probably a mile and a half from the causeway. This is the northernmost pyramid of Egypt, erected by Djedefre of the Fourth Dynasty, successor of the famous Khufu (Cheops), twenty-ninth century B.C. It has been completely demolished by modern native quarriers. Or. Inst. photo. No. 7800 by J. H. B.

University Department there are others, eight or more in number, who do no teaching and devote all their time to the work of the Institute. This gives the Institute a staff of thirteen or more members.

The discussion is divided into the following eight sections:

- I. The First Field Expedition of the Oriental Institute
- II. Purchases, Installations, and Diagrams
- III. The Assyrian-Babylonian Dictionary
- IV. The Coffin Texts and Early Stages of Egyptian Religion in the Forerunners of the Book of the Dead
- V. The Tales of Kalila and Dimna and the Ancestry of Animal Fables
- VI. The Archives
- VII. Co-operation with Other Institutions
- VIII. Publications

I. THE FIRST FIELD EXPEDITION OF THE ORIENTAL INSTITUTE¹

While the Institute was not primarily planned to carry on excavations, it was designed from the first to furnish its members with occasional opportunities to make rapid exploring expeditions in the Near East and to study original materials in the great museums both in the Near East and in Europe. It was planned that these expeditions should acquire by purchase new bodies of original documents for the expansion of the collections in Haskell Oriental Museum and thus make the Museum a more adequate magazine of materials for research, as well as a fuller expression of the life of ancient man for the sake of the student body of the University. The first expedition, which went out in 1919, included, besides the Director and Dr. Luckenbill, three graduate students of the Department of Oriental Languages: Messrs. A. W. Shelton, L. S. Bull, and W. F. Edgerton.

The destruction of the Ottoman Empire and the conditions resulting from the Great War, which for the first time in many centuries placed the earliest homes of civilization under enlightened government, made it urgently necessary for the new Oriental Institute to undertake a preliminary reconnoissance of the Near East and to secure by purchase from antiquity dealers there as well as in Europe, at least a share of the ancient documents of all sorts which had been accumulating in their hands during the war.

¹ For the interested readers among the more immediate friends of the University of Chicago, a popular account of this expedition appeared in the *University Record* in January, 1921 (Vol. VII, No. 1, pp. 6-25). The following rapid sketch of the expedition is a modification of this *Record* article for readers who may not have seen it there.

The most notable among these purchases in Europe is a papyrus copy of the *Book of the Dead*, a roll about thirty feet long written in *hieratic*, and with numerous colored vignettes. It is to be called "Papyrus Ryerson" in honor of the donor, Mr. Martin A. Ryerson. Leaving Paris on October 17 and embarking from Venice, the writer arrived in Cairo on October 30 after a journey of almost insurmountable difficulties at a number of points. Post-war Cairo in the throes of nationalistic agitation had completely lost its old charm. My time was divided between the antiquity dealers and the great national museum, where there were many new accessions and recent discoveries which I had never seen. Among these, the most notable monuments which I found time to examine more fully were several fragments of black stone containing the oldest known royal annals in human history, like those of the famous Palermo Stone. Although these new Cairo fragments had been twice published, it was still possible to secure numerous new readings, especially a group of ten predynastic kings of united Egypt, proving therefore that there was a long-enduring union of Egypt before the dynasties—that is, a predynastic dynasty, the oldest group of rulers over a united country now known in the human career. They must reach back toward 4000 B.C., and perhaps much earlier.

The extraordinary unfinished and later demolished pyramid of the Fourth Dynasty at Abu Roash, where a colossal structural causeway still survives, was very pleasantly visited in company with Lord and Lady Allenby, who kindly invited me to ride out there on horseback. I found it a pretty large order to control the powerful horse, the charger Lord Allenby had ridden on his famous Palestine campaign and which he kindly contributed as my mount. Lord Allenby takes a deep and very discerning interest in Egypt, both ancient and modern. I took occasion to urge upon him the desirability of photographing the desert margin from an airplane, which might thus disclose prehistoric cemeteries too faintly defined to be observable from the ground. He therefore very graciously requested the commander of the Royal Air Force at Cairo to place a plane and pilot at my disposal for an experimental trip. On January 13, 1920, I flew with this plane from the Heliopolis aerodrome across the southern delta directly to Abu Roash. Here, as the first

snapshot I ever made from the air, I was able to photograph the extraordinary causeway in which Lord Allenby is so much interested (see Fig. 1). The flight then continued southward along the edge of the desert, traversing nearly the whole sixty-mile pyramid cemetery. I was told that a first flight is usually limited to twenty minutes, but in order to cover the desired ground on this trip it was necessary to stay up some two hours and circle repeatedly over the various sites. It was an exceedingly "bumpy" day, and I suffered greatly from seasickness. The bumpiness forced us to stay up about five thousand feet, and this seriously reduced the size of the negatives. I secured negatives of the desert beside the leading pyramid cemeteries, nevertheless (Fig. 2), but my stay in Cairo was too limited to carry the experiment farther, and I found myself far too busy to go on with it. The officers of the Royal Air Force, however, understand what is needed, and have continued making negatives of the leading sites along the desert margin. A set of prints from these negatives has been kindly promised us for filing in the archives of the Oriental Institute. While this flight was only a preliminary trial it is evident from this first experiment that an exhaustive air survey of the desert margin recorded in photographic negatives would disclose much that has not yet been discerned on the ground.

Similarly an invitation of Mr. Robert Greg, director-general of the Egyptian Foreign Office, to visit with him and Mrs. Greg the excavations at Abydos and Tell el-Amarna, furnished a very agreeable opportunity to inspect the remarkable discoveries of the last five or six years, especially street after street of dwelling-houses of the fourteenth century B.C. at Amarna, with all household arrangements, baths, sanitary conveniences, drainage, gardens, wells, and even trees in the gardens, all disclosed by the German excavations before the war.

On returning to Cairo the day before Christmas, I found Mr. Ludlow S. Bull, Fellow of the Department of Oriental Languages, just arriving from America, the first additional member of the expedition to join me in the Orient. Mr. Bull then took up studies in the museum under my direction and accompanied me also in the inspection of excavations at Sakkara, Abusir, and Abu Ghurab,

where discoveries of the highest importance in the history of architecture have been made, including the earliest-known colonnades.

Wise application of the funds at the disposal of the Oriental Institute made it necessary to examine thoroughly from beginning



FIG. 2.—AIRPLANE VIEW OF THE SAHARA MARGIN AT THE PYRAMIDS OF ABUSIR LOOKING NORTH

The desert is on the left, the alluvial floor of the Nile Valley on the right, with checkered fields, irrigation pools and canals. *A-C*, pyramids of Abusir; *A*, pyramid and temple of Sahure; *A-B*, causeway of Sahure; *B*, valley temple of Sahure; *C*, pyramids of Neferirkere and Nuserre; *C-D*, causeway of these two kings; *D*, valley temple of the same. Fifth Dynasty group some miles south of Gizeh, erected twenty-eighth–twenty-seventh centuries B.C. Along such desert margins at the foot of the dry valleys seen here, the predynastic cemeteries, made ages before the pyramids, are commonly situated. Or. Inst. photo. No. 7795 by J. H. B.

to end all the private collections for sale and all the dealers' stocks available in Cairo and Luxor. The latter were greatly congested because of accumulations during the continuance of the war, when European museums were no longer making their annual selections and the entire body of tourist travelers was also lacking. This work consumed much of the time needed for study and research in the great Cairo museum. The purchases made in Egypt will be found in Section II below.

Our work was much aided by the cordiality of our relations with the European governments in control of the Near East, especially the English and the French. This fact is well illustrated by Lord Allenby's cordial support of my efforts to begin airplane photographic records. I was asked to meet the Milner Commission to discuss Egyptian affairs. I found both Lord Milner and Mr. Alfred Spender, secretary of the Commission, very hopeful and sympathetically interested in the future of scientific research in the Near East, anxious to see incorporated in the report of the Milner Commission recommendations for a sound policy in the government control and support of archaeological research, and I had the pleasure of handing Mr. Spender, at his request, a group of such recommendations.

Just before leaving London it had become evident that our plans for our Asiatic expedition could not be put through without more direct support from the British government. I therefore wrote to Mr. Balfour a few days before my departure from London, explaining the situation and asking the co-operation of the London Foreign Office in our effort to begin scientific work in Western Asia. Shortly after arriving in Cairo I received a kind letter from Mr. Balfour stating that he was relinquishing the Foreign Office to Lord Curzon, but assuring me that he had recommended the support of our work to his successor. A letter from the Foreign Office soon assured me that Lord Curzon had written to Lord Allenby and the Cairo Foreign Office, as well as the Civil Commissioner in Mesopotamia, kindly requesting them to give us every necessary aid. Our first great difficulty, the lack of transportation to Mesopotamia by way of Bombay (as conditions made it impossible to go out there overland from the Mediterranean), was thus overcome, and we cannot be too grateful for the cordial support thus given us by the British government.

The French Minister at Cairo, M. Lefèvre-Pontalis, is an old friend of Émile Sénart, president of the Société Asiatique. He at once showed a cordial interest in our enterprise. He supplied me with letters to the French provisional government at Beyrut, and a general letter also to all French officials whom we might meet on the frontiers of Asiatic territory in French occupation. He likewise informed the French government at Beyrut of our proposed travels in those regions, received a favorable reply, and handed me an official authorization to traverse French Syria.



FIG. 3.—STUMP OF A SO-CALLED MYRRH-SYCAMORE PLANTED NEARLY 1500 B.C.

The stump is at A, planted in the black earth inclosed in a low brick wall. It is one of a number brought from the Somali coast of Africa by Queen Hatshepsut of the early fifteenth century B.C. It is the earliest known example of such transplantation. Its exact botanical identity has still to be determined. Or. Inst. photo. No. 7846 by J. H. B.

On February 2 we returned to Cairo from a second trip in Upper Egypt, where we found much of interest and importance disclosed by new excavations (Fig. 3), of which space will not permit any account in this report.

Sailing from Port Said on February 18, 1920, the party arrived without incident on Sunday, February 29, in Bombay. After only forty-eight hours' delay we sailed on March 2 for Basrah, where we arrived on March 9 and disembarked on the tenth. We were met by Colonel Venning, chief-of-staff from the headquarters of the River Command, who took me up to headquarters to enjoy the hospitality of the commander, General Nepean; while the others

were comfortably quartered at a hotel conducted by the military authorities. A staff car was at once placed at our disposal and, in spite of the enormous extent of territory covered by the supply depots at Baṣrah, the car enabled us to assemble our supplies and equipment rapidly.

A few weeks before our arrival the railway from Baṣrah up the Euphrates side of the alluvial plain to Baghdad had been completed. This railway was placed at our disposal and the University of Chicago expedition was thus the first archaeological expedition to use the Baṣrah-Baghdad railroad.



FIG. 4.—TEMPLE TOWER OF ANCIENT UR, LOWER BABYLONIA, SHOWING EXCAVATIONS DURING THE WAR BY THE BRITISH

Or. Inst. photo. No. 7029 by D. D. L.

Leaving Baṣrah by the night train on the sixteenth of March, with our supplies and equipment in a "goods van," we arrived at Ur Junction, some one hundred and twenty miles from Baṣrah, on the morning of the seventeenth. We were permitted to keep the railway van for the permanent safeguarding of our stuff, while we made excursions out from the railway to the ancient sites we desired to study. After visiting Ur (Fig. 4) and Eridu (Fig. 5) sixteen miles south of it, we proceeded up the Shaṭṭ el-Ḥai, some eighty miles northward of the railway, through a very wild region (Fig. 6-7) over which had marched the expedition which had endeavored to succor General Townshend before his surrender to the Turks at Kût el-Amâra. Besides the important Sumerian sites of Lagash and Umma (Fig. 7)



FIG. 5.—TEMPLE TOWER AND RUINS OF ANCIENT ERIDU, LOWER BABYLONIA, THE SO-CALLED PORT OF UR

The city lay on or near the Persian Gulf in 2000 B.C., but, owing to the action of the rivers, it is now some hundred and fifty miles from the nearest shore line. Expedition cars in the foreground. Or. Inst. photo. No. 7035 by D. D. L.

which contain remains reaching back of 3000 B.C., we visited a number of unidentified city mounds on both sides of the Shaṭṭ el-Ḥai, a little-explored region which gave evidence of having been thickly populated at an enormously remote date. Here and elsewhere we saw much of the admirable work being done by the British (Fig. 8) in civilizing this turbulent district of wild nomads who had not paid any taxes to the Turks for fifteen years before the war.



FIG. 6.—PART OF OUR ARAB ESCORT IN LOWER BABYLONIA

Seven sheikhs accompanied the expedition on a forty-mile ride from Kal^c at es-Sikkar on the Shaṭṭ el-Ḥai to Tell Yokha, ancient Umma. Or. Inst. photo. No. 6751 by J. H. B.



FIG. 7.—THE OUTLAW SHEIKH MIZ'AL AND HIS FELLOW-OUTLAWS OF THE ALBU-GHWENĪN AFTER FORMAL SUBMISSION TO CAPTAIN CRAWFORD, ASSISTANT POLITICAL OFFICER AT KALĀ AT ES-SIKKAR

Captain Crawford is the only European in the line. Sheikh Miz'al is the figure on his right. The incident took place on the mound of Tell Yokha, where the group is standing, the sheikh, with some thirty or forty rifles, having ridden in upon us with seemingly hostile intent. Dissatisfied with the conditions offered by Crawford, he withdrew his submission and rode away. Or. Inst. photo. No. 6750 by J. H. B.

Returning to the railway at Ur we moved up the line through Lower Babylonia, making local trips away from the railway either in motor launches on the river (Euphrates) or in automobiles, all furnished by the British administration. In this way the more important remaining sites of Lower Babylonia were visited, espe-



FIG. 8.—PART OF A FORCE OF FOURTEEN THOUSAND ARABS WIDENING IRRIGATION CANAL ABOVE AFEJ UNDER BRITISH CONTROL

This extraordinary piece of work, done by Arabs levied in groups from various tribes, was under charge of Major Daly of Diwaniyah. The width of the canal was increased from 16 to 80 feet over a length of 7 miles. Before the British occupation these Arabs were more interested in intertribal fighting than anything else. Or. Inst. photo. No. 6772 by J. H. B.



FIG. 9.—THE RAILWAY STATION OF ANCIENT BABYLON

Formerly called "Babylon Siding." The word "Siding" was erased in favor of "Halt," producing a palimpsest of which both stages are still quite clear. The railway passes through the walls and directly across the residence portion of the ancient city. Or. Inst. photo. No. 6789 by J. H. B.

cially Senkerah, Warkah, and Niffer, the scene of the work of the Philadelphia expedition.

By March 29 we had reached Hillah, six miles from the ruins of Babylon, accessible now by railway (Fig. 9). Here General Wauchope was very kind and finally took in Professor Luckenbill and myself as his guests. We spent nearly a week studying the ruins of Babylon (Figs. 10-13), left just as the German excavations had



FIG. 10.—FIELDS AND GROVES ONCE COVERED WITH HOUSES WITHIN THE WALLS OF ANCIENT BABYLON

The railway passes just out of range on the right. The mound in the background, commonly called *Babil*, is incorrectly identified by the Arabs with the traditional Tower of Babel. Or. Inst. photo. No. 7151 by D. D. L.

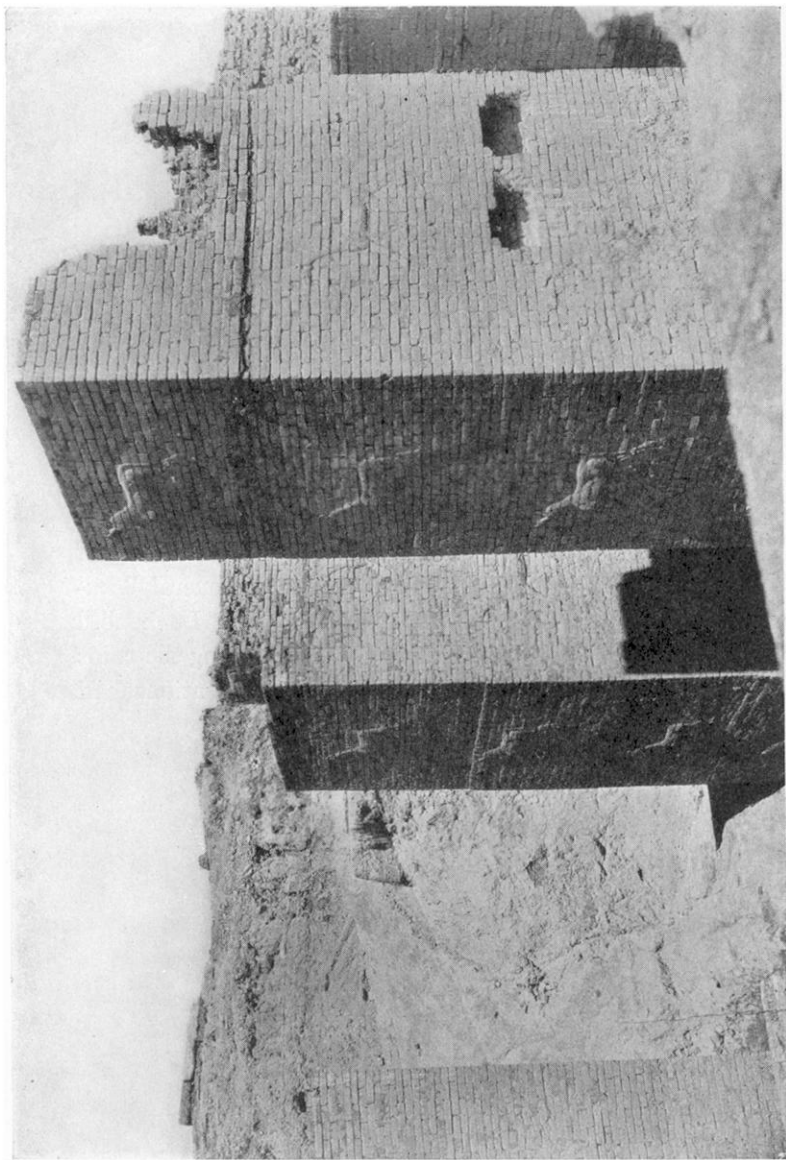


FIG. 11.—THE FRONT OF THE ISHTAR GATE IN ANCIENT BABYLON WITH DECORATION OF ANIMAL FIGURES IN RELIEFS OF GLAZED BRICK

Excavated by the German expedition under Professor Koldewey. Note in the background the high level of the accumulation of rubbish and the enormous body of material removed by the excavators. Or. Inst. photo. No. 6540 by D. D. L.

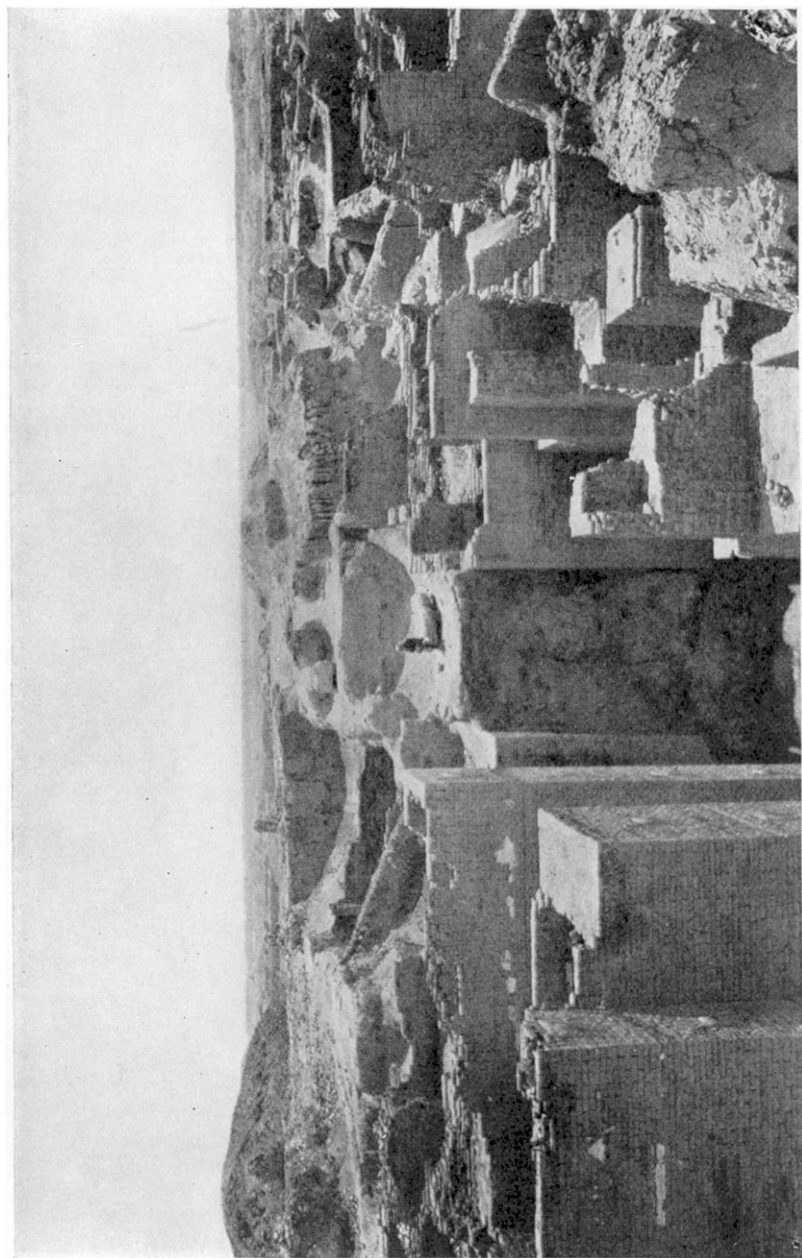


FIG. 12.—THE ISHTAR GATE AND THE ADJACENT RUINS OF ANCIENT BABYLON

The gate is at the left; the highway in the middle foreground is the famous festival street of Alburshābu. The human figure in the center is standing on the pavement and the cross-section exposed immediately below him shows the great depth of the artificial filling as the level of the city rose. The discovery of the gate and the excavation of the place are the work of the German expedition under Professor Koldewey. Or. Inst. photo. No. 6541 by D. D. L.



FIG. 13.—DRY BED OF THE ANCIENT COURSE OF THE EUPHRATES
AT BABYLON

Natives on the left are walking in the bed of the stream near the piers of a Euphrates bridge built by King Nabonidus in the sixth century B.C., the oldest known bridge over a large stream. Or. Inst. photo. No. 6777 by J. H. B.

uncovered them, and made a great many photographs, copies, and plans. From Ḥillah we visited Nejef, the remarkable sacred city of the tomb of Ali (Figs. 14–15), Mohammed's son-in-law, which is forty miles south of Ḥillah, and until the British conquest, had been closed to non-Moslems with few exceptions. General Wauchope kindly accompanied us to the tower of Birs Nimrûd (Fig. 16) the highest ancient building surviving in Babylonia, and he was much interested



FIG. 14.—BODY CARRIER AT THE SACRED CITY OF NEJEF

The body, wrapped in reeds, lies across the pommel of the horseman's saddle. Such bodies are brought from great distances, even as far as Persia, to be buried in this holy city near the sacred tomb of Ali (Fig. 15), the son-in-law of Mohammed. The approach of these bodies is often quite evident long before they can be seen. Or. Inst. photo. No. 6799 by J. H. B.

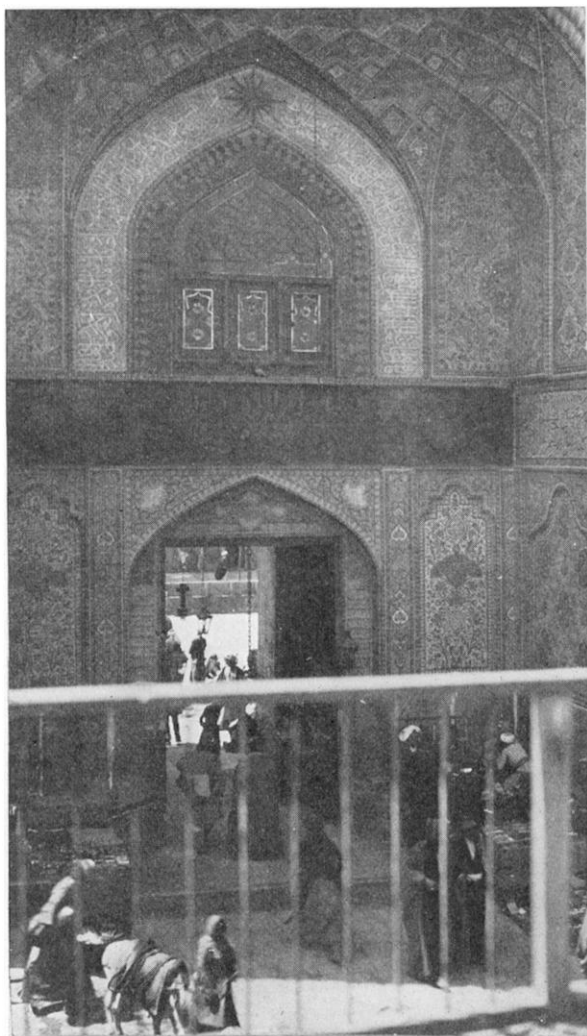


FIG. 15.—GORGEOUS INCRUSTATION OF GLAZED PLAQUES AT THE ENTRANCE OF THE TOMB MOSQUE OF ALI AT NEJEF

This holy shrine of the great majority of the eastern Mohammedans is nearly one hundred miles south of Baghdad on the margin of the Arabian desert. The Tomb of Ali is within, but the fanatical Moslems of the place, who were very hostile and had murdered the British resident not long before our coming, would not permit us to enter. This photograph was made from a loft over a little shop. The houses entirely prevent a photograph of the whole front. The bodies (Fig. 14) are all carried in at this door, are left for a time by the Tomb of Ali, and then removed for burial. Note the tradesmen and money-changers at the entrance and the peddlers hawking their wares in the interior. Or. Inst. photo. No. 7165 by D. D. L.

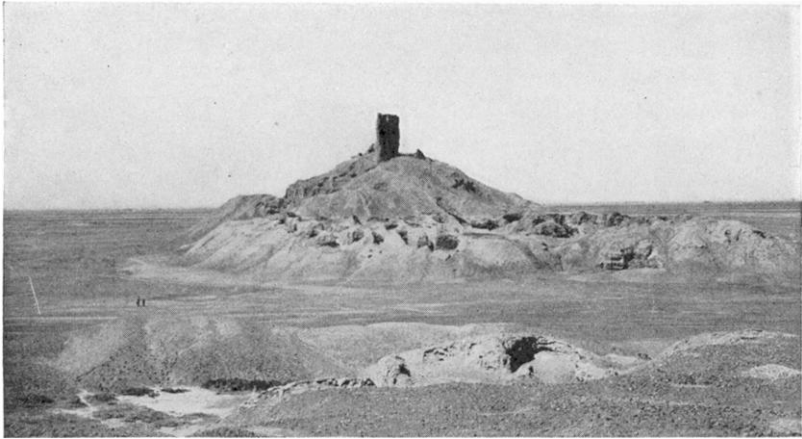


FIG. 16.—TEMPLE TOWER OF BIRS NIMRŪD, UPPER BABYLONIA

This ruin is the tallest ancient building surviving in Babylonia, but the rains and weather are rapidly undermining it and its fall is imminent. The place has never been thoroughly excavated. Or. Inst. photo. No. 7177 by D. D. L.

in seeing its threatening fall averted by the proper repairs around the base of the tower—a piece of salvage work which very much needs to be done. Before we left, General Wauchope invited a number of leading British officers from G.H.Q. in Baghdad to meet him in Babylon, and we had the pleasure of taking them through the ruins of the chief buildings. They were most interested in the Festival Street (Fig. 12), the paving of which, laid by Nebuchadnezzar, must often have been trodden by the feet of the Hebrew exiles whom this mighty king carried away from Jerusalem.

Still having with us our “goods van,” carrying the outfit and provisions, we arrived in Baghdad on the evening of April 5. General (now Sir) Percy Hambro, the quartermaster general, kindly took me in as his guest, and the other members of the expedition were put up at the Hotel Maude. Finding that the railway north of Baghdad differs in gauge from the Baṣrah-Baghdad stretch, we therefore relinquished the “goods van” and stored our stuff at the officers’ hostel. Besides visiting some neighboring ruins (Fig. 17), especially the marvelous palace hall at Ctesiphon, our time in Baghdad was largely spent in preparations for the trip up the Tigris across Assyria

to Mōṣul (Nineveh). Both Colonel A. T. Wilson, the civil commissioner, and General Hambro aided us without stint in all these preparations.

On April 12 all was in readiness for our northern journey up the Tigris, by rail to Shergât, something over 180 miles by train from

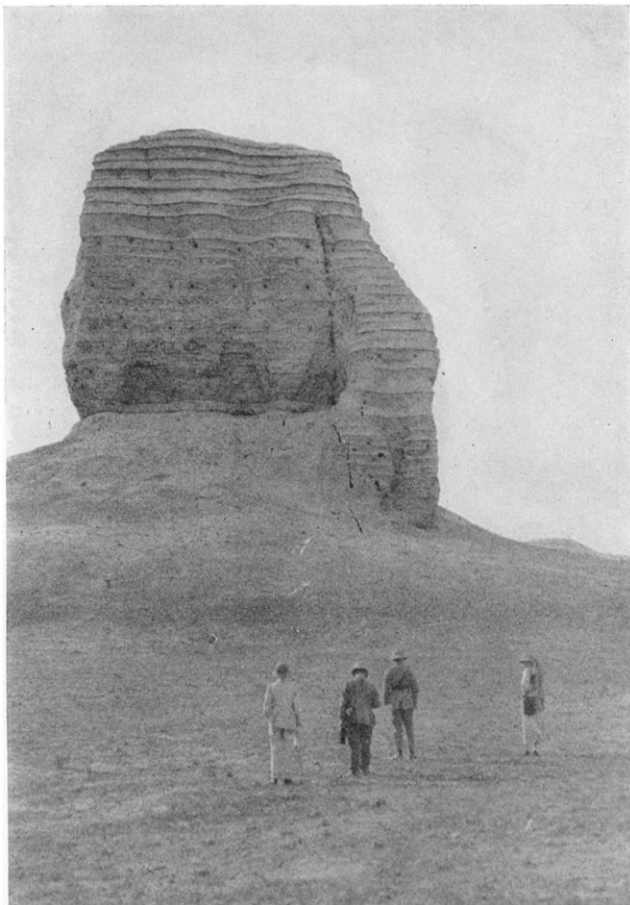


FIG. 17.—TEMPLE TOWER OF AKERKÛF, UPPER BABYLONIA

Erected by the Cassites, the structure may have been built in the middle of the second millennium B.C. The curious horizontal striations are due to the projecting matting laid at intervals between the horizontal courses of sun-dried brick. The people in the foreground, from right to left, are the intrepid explorer and able orientalist, Miss Gertrude Lowthian Bell, now an influential member of the British administration in Mesopotamia; General Sir Percy Hambro, the quartermaster general, now in India; Professor Luckenbill; and Sir Hugh Bell. Or. Inst. photo. No. 6814 by J. H. B.

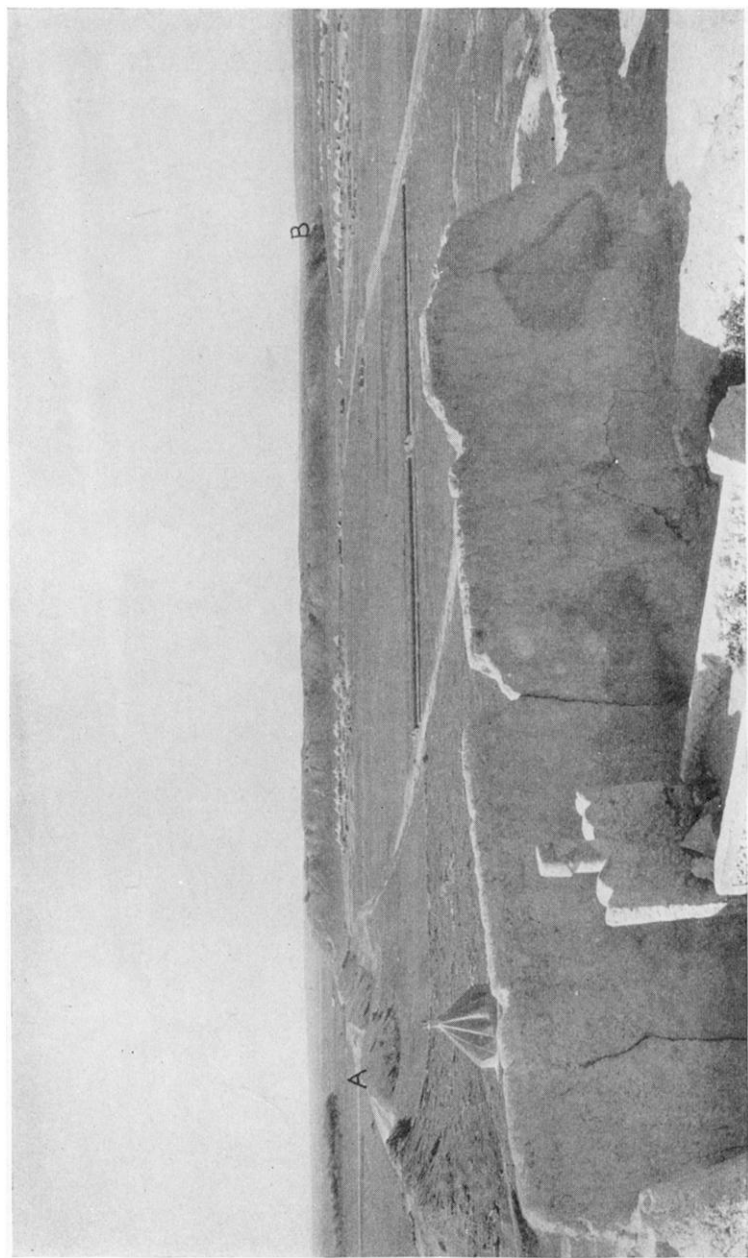


FIG. 18.—PALACE PLATFORM OF SENNACHERIB AND ASSURBANIPAL AT NINEVEH
(SEVENTH CENTURY B.C.)

Seen from northwest corner of Nebi Yûnus (marked *C* in Fig. 19), looking north along west wall (at the left) of ancient city. The dry bed of the Tigris extends along the west (the left) of this wall. The tents are those of British East Indian troops encamped on the areas once occupied by ancient Ninevite houses. The modern graves in the foreground are immediately north of the tomb mosque of Nebi Yûnus on the palace platform of Esarhaddon. No modern scientific excavations have ever been carried on in this great imperial city. Or. Inst. photo. No. 6594 by D. D. L.

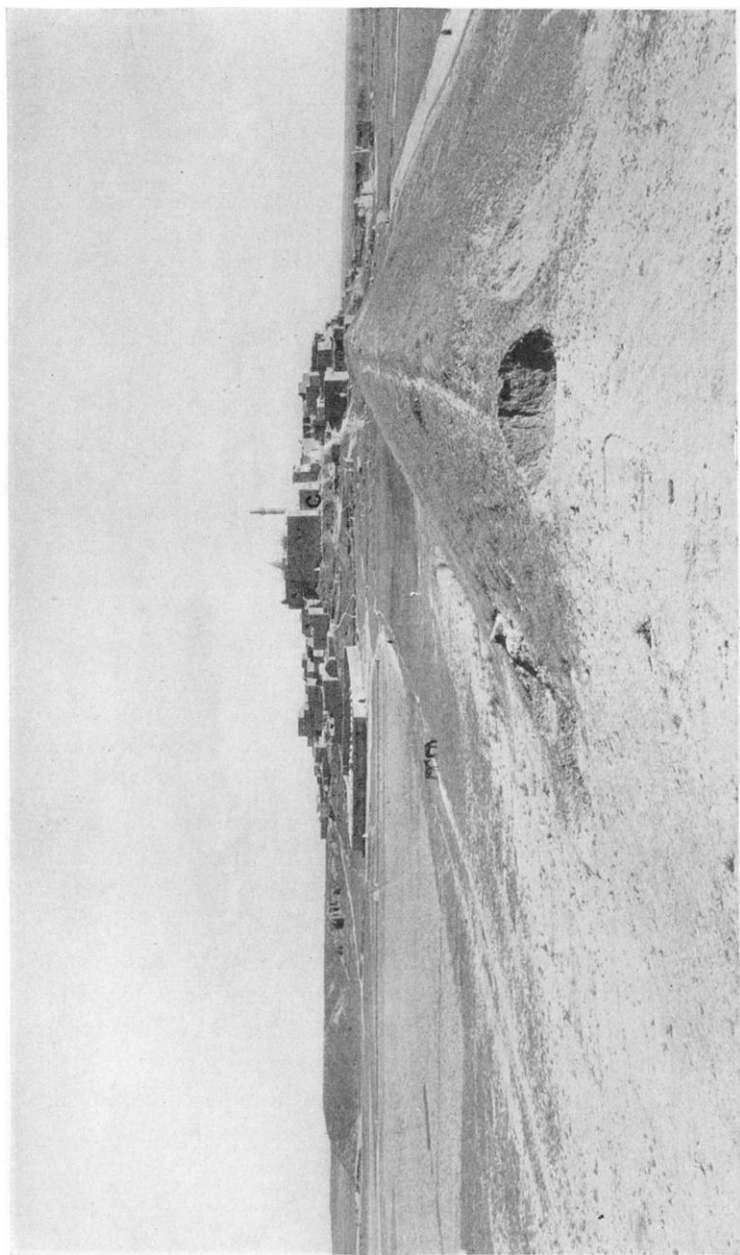


FIG. 19.—VILLAGE OF NEBI YŪNUS ON PALACE PLATFORM OF ESARHADDON AT NINEVEH
(SEVENTH CENTURY B.C.)

Seen from west wall of ancient city from the point marked A in Fig. 18, looking south. The tomb of a Christian bishop, identified by the Moslems as that of the prophet Jonah, occupies the place its name, Nebi Yunus ("Prophet Jonah"). The village and modern cemetery, extending over practically all of Esarhaddon's palace platform, are a serious obstacle to excavation. Or. Inst. photo. No. 6589 by D. D. L.

Baghdad. Shergât is still the railhead and likely to remain so for a long time. We were put up here at a rest camp while we studied the remarkable ruins of Assur, the earliest capital of Assyria, founded at least as early as 3000 B.C. The place had been completely excavated by the Germans and their work, clearing the place from the latest ruins at the top down to the primitive rock, had been finished before the outbreak of the war. It is the only site in Western Asia east of Troy which has been so completely investigated and it proved extremely instructive.

Leaving Shergât by automobile on April 14, we made the run of some eighty miles northward up the west side of the Tigris, to Môsul, where the commander, General Fraser, very kindly took me in and arranged for the other members of the expedition to be put up at a native hotel. We began at once the study of the ruins of Nineveh, the latest Assyrian capital (Figs. 18-20), lying across the Tigris directly opposite Môsul. This kept us busy until an ebullition of the Kurds had settled down and we were permitted to run about fifteen miles northeast of Môsul to the foothills close under the northern mountains to visit the ruins of Khorsâbâd, the royal residence of Sargon II (722-705 B.C.), father of Sennacherib. The palace has entirely disappeared since the French excavations cleared it, but we found evidence that excavation would still be richly rewarded.

Crossing the river to the east side, we were also able to move down the Tigris some twenty miles below Môsul, to another capital of Assyria, the biblical Calah, now called Nimrûd. The temple tower and the palaces here in spite of native vandalism (Fig. 22), are in an unusually good state of preservation. Many sculptures and inscribed records (Fig. 21) project from the incumbering rubbish, insuring magnificent returns for excavation, and a great opportunity for recovering and reconstructing an entire Assyrian city as well as a tremendous chapter of human history. We were accompanied in our inspection by the owner of the land on which these ruins stand, and accepted his invitation to dine at his house as we were returning to Môsul. We found it was near the ruins of Balawât, an Assyrian palace of the ninth century B.C., which we also saw. It was from this palace that Rassam is reported to have taken out the massive

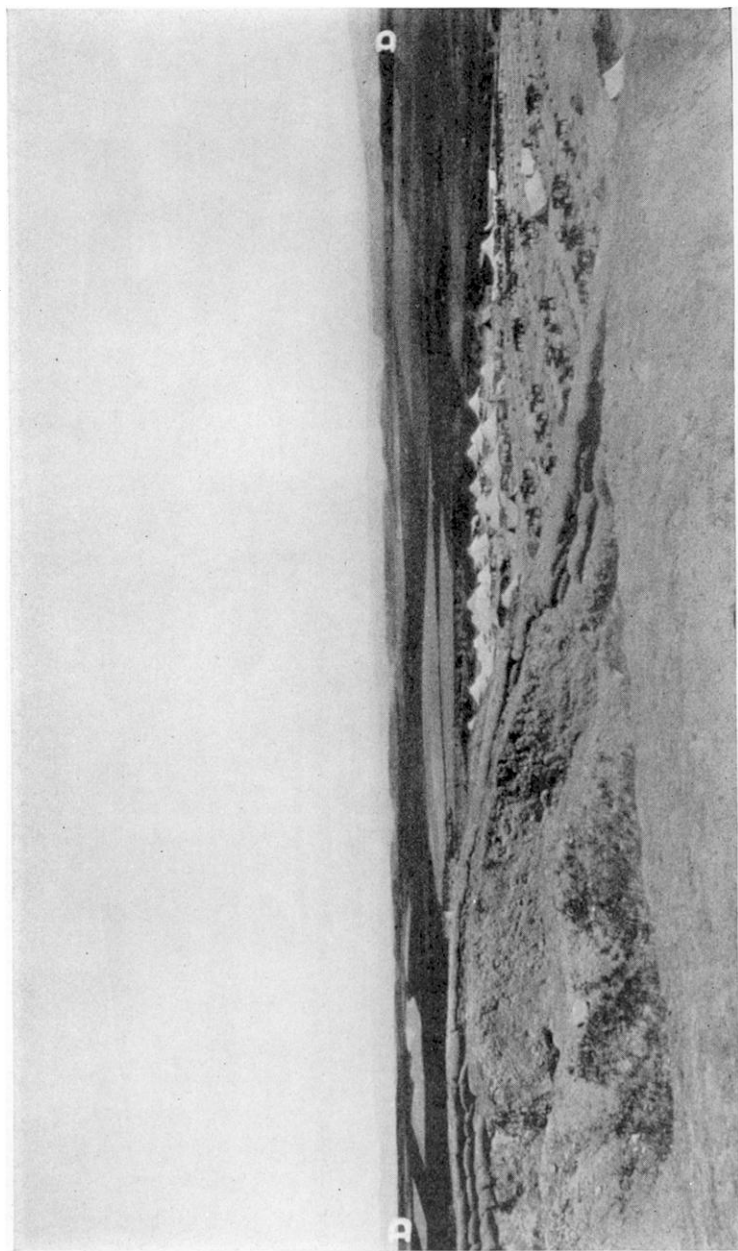


FIG. 20.—GRAIN FIELDS IN APRIL INSIDE THE WALLS OF ANCIENT NINEVEH

Seen from the northeast corner of the palace platform of Sennacherib and Assurbanipal (marked *B* in Fig. 18). Line *D-D* is the east and northeast wall of the ancient city; in foreground on corner of palace platform a modern machine-gun position with sandbags still in place; on the plain, camp of British Indian troops. On the skyline the mountains of western Persia, the region where Alexander the Great defeated the last of the Persian armies. Or. Inst. photo. No. 5984 by D. D. L.

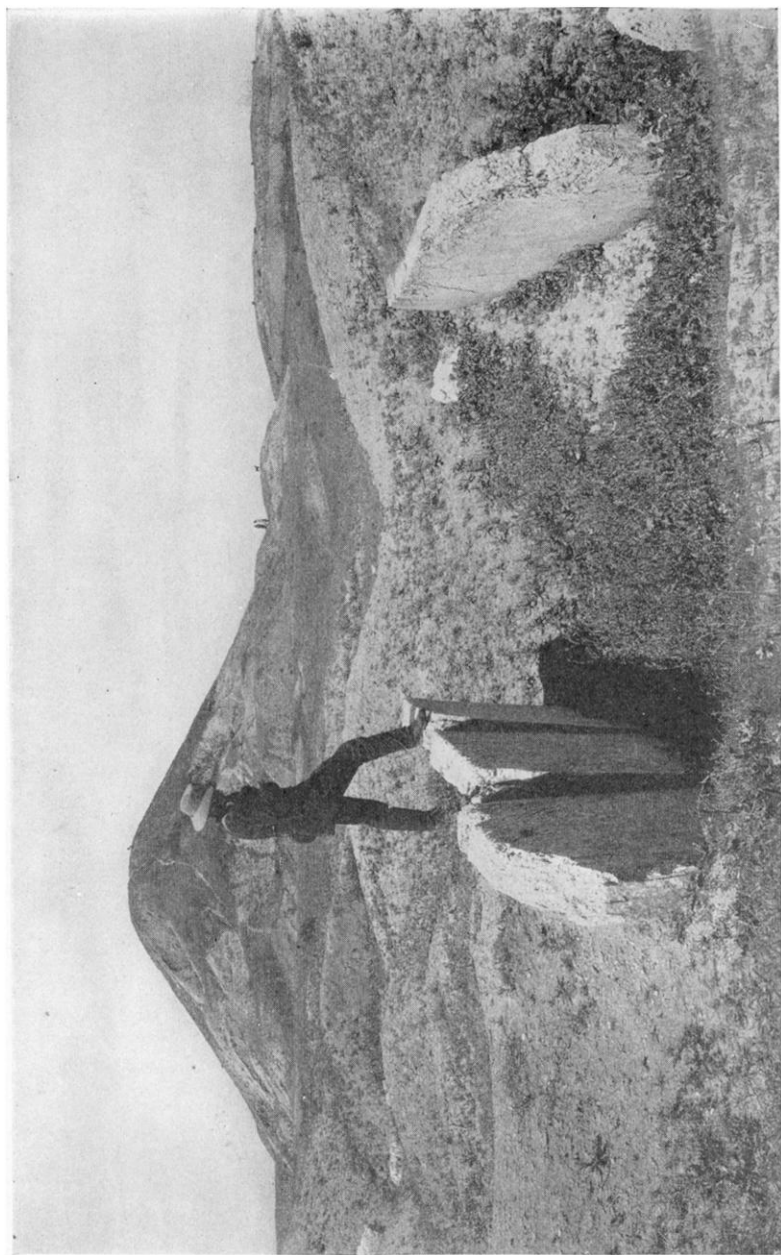


FIG. 21.—THE TEMPLE TOWER OF CALAH-NIMRŪD, ONE OF THE EARLIER CAPITALS
OF ANCIENT ASSYRIA

Seen from one of the palace gates in the foreground looking north. The place has never been scientifically excavated. It is some twenty miles south of Nineveh, close to the Tigris. Or. Inst. photo. No. 6571 by D. D. L.

bronze mountings of a palace gate richly adorned in *repoussé* designs. In so far as the writer knows, nothing has since been done there.

We had now ascended the Tigris about 275 miles above Baghdad, and some 625 miles from the Persian Gulf, to the region where it issues from the northern mountains. North of us was a Kurdish population quite unsafe to penetrate. Indeed the whole Môsul



FIG. 22.—NATIVE VANDALISM AT THE TEMPLE TOWER
OF CALAH-NIMRÛD

The masonry blocks spread out on the right slope of the mound were taken out of the cutting immediately on their left by the modern native owner of the land with the purpose of securing building material for his house. The destruction was stopped by the British. Or. Inst. photo. No. 6565 by D. D. L.

region was a hazardous one. A few days before our arrival a British officer was murdered close by the ruins of Assur. Of the fifteen political officers of the British administration, seven were murdered by natives, five before our arrival and two afterward. Such unsafe conditions have since been much improved. Our return to railhead at Shergât was delayed by a terrible cloud-burst storm which washed out the bridges. When we finally reached Shergât again on April 20 we found the railway broken in two places by the storm, while hostile Arabs had cut it in a third place. We were completely cut off from Baghdad and unable to reach it again until April 23.

On returning to Baghdad the Civil Commissioner informed me of the discovery of a series of remarkable ancient wall paintings uncovered during the excavation of a machine-gun position in the enormous Roman stronghold of Şâlihîyah (Fig. 26) occupied by the British as their farthest outpost on the upper Euphrates some three hundred miles above Baghdad. He asked me to go there at once and make a record of the paintings and a series of photographs, that they might not perish and be lost to modern knowledge. As the British authorities had thus far thought it unsafe to allow our expedition to go up the Euphrates more than at most a hundred miles because the region was still a fighting zone, I seized the opportunity with the greatest pleasure, but asked for a fortnight to be spent among the monuments on the Persian border first.

The civil Commissioner then stated that if we went to Persia first we would be too late to save the paintings, for the reason, then strictly confidential and known only to the High Command, that the British frontier on the upper Euphrates (toward Syria and Fayşal's kingdom), was to be drawn in about a hundred miles farther down the river because of excessive difficulties in such a long line of transport communications. If we went to Persia first the paintings would by that time lie out a hundred miles beyond the British lines, and equally far in Arab territory, that is, they would be quite inaccessible on our return from Persia. It was evident that we should leave for the upper Euphrates at once.

I then asked the Civil Commissioner why it would not be possible, on completing our work at Şâlihîyah, to proceed up the Euphrates, go on to Aleppo, and thus *return to the Mediterranean overland*, instead of coming back to Baghdad for the long return voyage via India and for the second time crossing the Indian Ocean to the Red Sea and the Mediterranean. The region was infested with Arab bandits, the tribes were in constant turmoil, and no white men had crossed from Baghdad to the Mediterranean for many months. The Civil Commissioner therefore replied that there was of course great risk, but that the probabilities were in our favor, as the Arabs would be in a genial frame of mind as a result of having recovered so much of the Euphrates Valley. I then asked the Civil Commissioner to telegraph to Şâlihîyah to Colonel Leachman, who had

traversed the region several times in former years and had long been acquainted with the sheikhs of the tribes through which we would pass on our way to Aleppo, and to ask his opinion. Colonel Leachman replied the next morning, stating it was "probable" the Chicago expedition could get through. The Civil Commissioner then agreed to furnish two of the seven automobiles we needed, provided the



FIG. 23.—OUR SEVEN CARS NEAR THE EUPHRATES CROSSING AT FALLŪJAH (UPPER BABYLONIA) ON THE FIRST LAP FROM BAGHDAD TO THE MEDITERRANEAN

It was in this vicinity that the expedition was overtaken by darkness and obliged to spend the night in the open country among the same Bedouin who, a few weeks later, murdered Colonel Leachman. Or. Inst. photo. No. 7299 by D. D. L.

commander-in-chief in Mesopotamia, General Haldane, would give us permission to go, and the quartermaster-general, General Sir Percy Hambro, would furnish the other five cars. At a lunch with General Haldane I met both these gentlemen that same day, and secured their consent to furnish these automobiles and the needed permission as well.

On Wednesday morning, April 28, our seven automobiles crossed the Tigris and, swinging out of the southern suburbs of Baghdad, drove straight west (Fig. 23) on the first lap of the overland journey up the right (south or west) bank of the river. As the result of a broken bridge of boats at Fallūjah we were forced to undertake too long a journey for the first day, and, although it was planned that we



FIG. 24.—THE FIELDS OF ʿĀNAH ON THE UPPER EUPHRATES

This narrow fringe of vegetation, extending for several miles along the river at ʿĀnah and watered by the irrigation wheels seen in the foreground, is very exceptional. The alluvial flats between the banks of the Euphrates and the cliffs of the desert plateau are for the most part arid desert like the plateau above or disappear altogether. Compare Figure 30. Or. Inst. photo. No. 7332 by D. D. L.

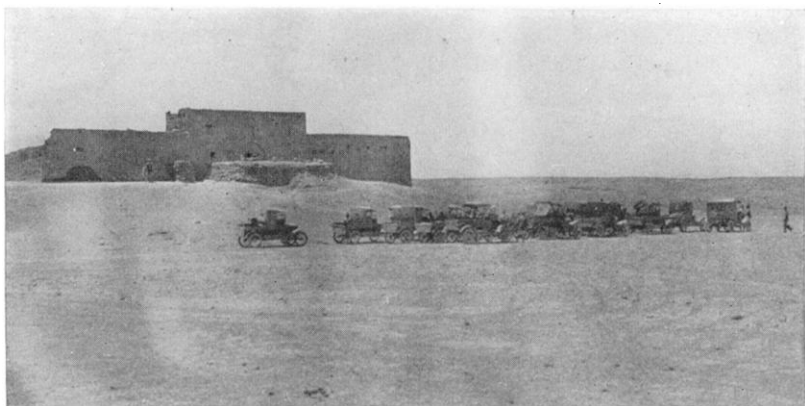


FIG. 25.—OUR ESCORT FROM ʿĀNAH TO ŞĀLIḤÎYAH AT THE GATE OF A KHAN ON THE UPPER EUPHRATES

The Arabs on the north (left) shore of the Euphrates, whose turbulence has been notorious for centuries, were frequently firing across the river at the British transport where the road approached the stream, and on this last lap of the automobile journey, which extended from ʿĀnah to Şāliḥîyah, escort was necessary. Or. Inst. photo. No. 7335 by D. D. L.

should arrive each night at a British post, we were obliged to stop short and spend our first night unprotected in the open desert with Beduin camp fires visible all about us. A night or two later the same mishap occurred again. The British officials showed great anxiety on our behalf, though we saw no signs of danger. A few weeks later, however, Colonel Leachman, above referred to, was murdered by

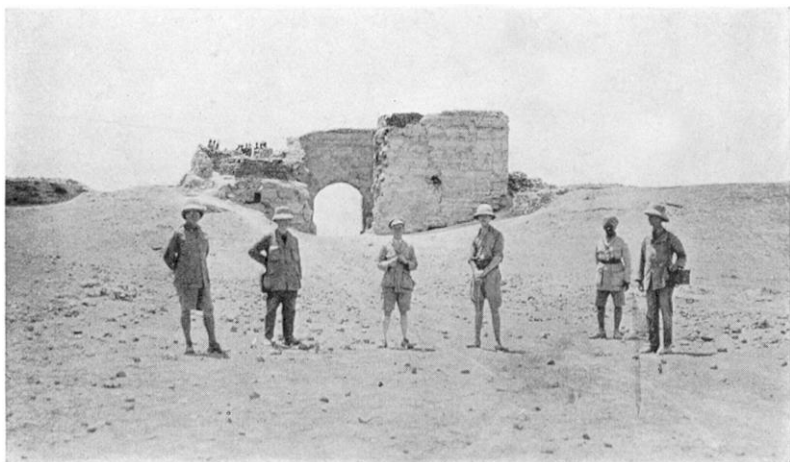


FIG. 26.—ONE OF THE GATES OF THE GREAT ROMAN FORTRESS
AT ŠĀLIḤĪYAH ON THE UPPER EUPHRATES

The fortress is on the right bank of the river, about thirty miles below the mouth of the Khabur. Its ancient name is uncertain. A machine-gun battery occupies the left tower of the gate. The figure at the extreme left is General Cunningham, commander of this uppermost British stronghold on the Euphrates, from which he withdrew a hundred miles down the river beginning on the day of our departure for the Mediterranean. Or. Inst. photo. No. 6853 by J. H. B.

the Arabs in the vicinity of the spot where we spent our first night in the open desert, near Fallūjah.

Accidents, breakages, and delays of desert travel were such that the three-hundred-mile trip to the British frontier occupied an entire week. The last day or two after leaving ĠĀnah (Fig. 24), we were convoyed, as we were passing points which were sometimes under Arab fire (Fig. 25). General Cunningham, in command at Šāliḥīyah (Fig. 26), received us most kindly, and as his quarters were entirely full, Colonel Leachman had us set up our field beds in his office! Every possible kindness was shown us by the British officers along the entire

trip. General Cunningham sent Professor Luckenbill and myself for an air reconnoissance in one of his bombing planes, an experience which gave us exceedingly valuable impressions of the desert and the Euphrates Valley.

The British withdrawal from Şâliḥîyah down the Euphrates was expected at once, and this left us only the fourth of May on which



FIG. 27.—SANCTUARY CONTAINING THE WALL PAINTINGS IN THE GREAT ROMAN FORTRESS AT ŞÂLIḤÎYAH ON THE UPPER EUPHRATES

The building occupied a corner of the fortress, dropping sheer to a dry *wadi* into which its walls have toppled over. The rubbish from the modern excavations shot over the face of the walls can be seen at the right, lying at the angle of rest. The most important of the paintings occupy the left end of a transept, the wall of which is formed by the highest part of the fortress in the background of this view. They date from the third century of the Christian Era. Or. Inst. photo. No. 7366 by D. D. L.

to make our records of the paintings. They occupied the walls of an ancient oriental sanctuary (Fig. 27) and proved to be of unusual interest and value.¹ The British officer in command of the post, Major Wright-Warren, placed a body of Indian troops (Fig. 28) under a sergeant at my disposal to shift sandbags in order to lift the cameras to the proper level, and also to make additional excavations that we might follow the ground plan of the building. Professor Luckenbill made twenty-four negatives of the paintings and the

¹The publication of these unique documents will be found discussed in Section VIII, p. 327.

ancient sanctuary containing them, the young men made a ground plan of the structure, while I spent the day in making as full notes as possible on the paintings and inscriptions. I then suggested to the Major that the Indian troops he had given us might be set to work covering the wall paintings with rubbish again and thus protecting them from destruction by the Arabs. He at once gave



FIG. 28.—BRITISH EAST INDIAN TROOPS EXCAVATING AT
ŞÂLIHÎYAH UNDER THE DIRECTION OF THE CHICAGO
EXPEDITION

These East Indians were placed at the disposal of the Oriental Institute Expedition for the excavation of the ground plan and the clearance of an additional painted wall. Or. Inst. photo. No. 7368 by D. D. L.

orders that this be done, and before the British left they were again safely buried.

As the British were about to retire down the river and we were to continue our journey up the Euphrates, it was of course necessary to surrender our seven automobiles to General Cunningham. On the morning of May 5 we therefore shifted to five native wagons or *‘arabânahs* (Fig. 29) and in these we drove northward out of the ancient fortress of Şâlihîyah before dawn as the British were preparing to withdraw through the south gate. By the good offices of Colonel Leachman five Arab rifles of a neighboring friendly sheikh met us as we

drove away and escorted us over no man's land into Arab territory. We thus left British and committed ourselves with much misgiving to Arab protection. In a few hours we were met by five other Arab horsemen, who were sent by the Arab government of King Fayṣal from Dêr ez-Zôr to meet us and relieve the local rifles who had first escorted us.



FIG. 29.—OUR DRIVERS AT ŞÂLIḤÎYAH ON THE SECOND LAP FROM BAGHDAD TO THE MEDITERRANEAN

The expedition shifted at ŞâliḤîyah from its seven automobiles to five native wagons, or *'arabânahs*, two of which are seen above. Or. Inst. photo. No. 6895 by D. D. L.

The wagon journey (Figs. 30-40) from the British frontier up the Euphrates and thence across to Aleppo occupied a week. It was an anxious, rough, and difficult week. The Arabs showed the greatest friendliness toward us as Americans; had we not been Americans we would have stood little chance of coming through alive. We had much opportunity to meet the sheikhs (Figs. 33-35) and a deputation of officers of the Arab army called on me at Dêr ez-Zôr to send messages imploring assistance and advice from America. The seriousness with which they voiced their need of guidance and advice, and their earnest desire for assistance from America were very appealing. They were ready to give us all protection, and our chief danger lay in the roving bands of brigands infesting the country. Having passed through the numerous city mounds between Aleppo and the Euphrates (Fig. 40), we rode safely into Aleppo on May 12

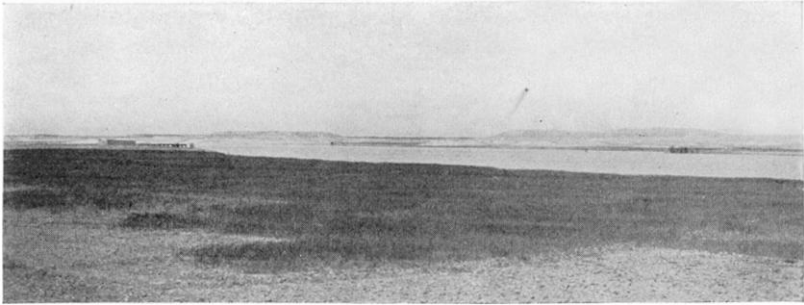


FIG. 30.—A TYPICAL EUPHRATES LANDSCAPE ABOVE ŞÂLIHÎYAH

Showing how the cliffs of the desert plateau approach the river, leaving too narrow a margin for the support of an agricultural population. The irrigation waterwheels, of which one is seen on each shore, are very rare for the entire stretch from Hit to Meskenah. It is evident that this region never has supported a settled agricultural population large enough to develop a great nation or any degree of political power arising from so scanty a material basis. Or. Inst. photo. No. 7320 by D. D. L.



FIG. 31.—A WATERLESS “WADI” OF THE DESERT PLATEAU NEAR DÊR EZ-ZÔR ON THE UPPER EUPHRATES

The waters which have eroded these *wadis* empty into the Euphrates. Such erosion valleys form serious obstacles in the course of the Euphrates' journey. Or. Inst. photo. No. 7405 by D. D. L.

and thus an American expedition was the first group of white men or non-Moslems to cross the Arab state after its proclamation.

We had hoped that it would be possible to penetrate southeastern Asia Minor from Aleppo but found this unfortunately quite out of the question. The Arabs hovering on the flanks of the French threatened to cut the railway south from Aleppo, and we were



FIG. 32.—THE HEAD OF OUR WAGON CARAVAN AND THE CLIFFS OF THE EUPHRATES VALLEY ABOVE ŞÂLIHÎYAH ON THE UPPER EUPHRATES

The valley floor between the foot of the cliffs and the river margin (just behind the observer) is arid desert like the plateau above. This is typical of the Euphrates Valley between Hit and Meskenah. When the cliffs approached too closely to the waters' edge to permit passage it was necessary to ascend to the plateau, where the journey was often seriously delayed by *wadis* like Figure 31. Or. Inst. photo No. 7412 by D. D. L.

urged to leave for Beyrut as quickly as possible. The conditions throughout Syria were very unfavorable for carrying out the archaeological reconnoissance which we had hoped to make.

It was, however, very important that as we went south we should inspect the ruins of Kadesh and Ba'albek, two leading points between the Lebanons. I secured a letter from the Arab governor of Aleppo to the local authorities in the Orontes Valley, who furnished us with escorts, and we were thus able, at considerable risk from the brigands north of Tripoli, to inspect the imposing city mound of

ancient Kadesh on the Orontes (Fig. 41). The modern name of the place is Tell Nebi Mandûh, and its identity with ancient Kadesh, which I endeavored to demonstrate in my *Battle of Kadesh*, has been doubted by some scholars, notably by Petrie. Recent French excavations in the great mound have disclosed an Egyptian relief in stone in which Seti I is shown worshiping the local god, called in



FIG. 33.—SHEIKH RAMADÂN-BEG IBN-SHALLÂSH AND A GROUP OF HIS TRIBESMEN OF THE ALBU-SARAI ABOVE DÊR EZ-ZÔR

The sheikh is the tall white figure at the left. He has turned away from the camera because of a disfigurement received in the Great War, part of his nose having been carried away by shrapnel. He is a shady character who at this time was receiving a subsidy from King Fayṣal and spending it on behalf of the Turkish Nationalists. Although he practically forced the writer to carry a confidential letter for him to Aleppo, he was most kind and hospitable and showed every kindness to the expedition in his great black *maḍîf* (guest tent), visible here behind the people. Note the Euphrates cliffs at left. Or. Inst. photo. No. 7408 by D. D. L.

the inscription "lord of Kadesh." The identity of the place as ancient Kadesh is thus conclusively established. We also visited Ba'albek. On the eighteenth of May we reached Beirut.

Dr. H. H. Nelson, head of the history department at the American College in Beirut, and a Doctor of the Department of Oriental Languages at Chicago, gave us a warm welcome and was of the greatest assistance to us in exploring the Phœnician coast (Fig. 42).

The institution gave him complete freedom from duty so that he could accompany us everywhere, and he became temporarily a member of the expedition. In motor cars we went up the Phoenician coast northward from Beyrut as far as some twenty miles north of Tripoli, that is to the northern end of Lebanon, where we were stopped by the depredations of brigands.



FIG. 34.—SHEIKH ŞUWÂN OF THE SABKHA ARABS ABOVE DÊR EZ-ZÔR ON THE UPPER EUPHRATES

The sheikh is the second figure to the left. The head of a powerful group of Arabs, he made a very straightforward impression. He based great hopes on President Wilson and the fourteen points, knowledge of which had reached him even in this far-away Arab wilderness. His sturdy son, very proud of a new Mauser rifle, is the fourth figure. Or. Inst. photo. No. 7434 by D. D. L.

Going southward from Beyrut to reach Tyre and Sidon in the same way, I found the French authorities most friendly, as they had been notified of our coming, and they cordially responded to all requests for protection or assistance; but as we were about to leave Sidon and push on southward to Tyre, news came in that three men had just been shot by brigands a few miles out on this road, and the French commandant urged us to turn back. We were quite willing to comply.

At Sidon we were entertained at lunch by Dr. George A. Ford, of the American Mission, who showed us some examples of his extraordinary Phoenician collection—especially the sculptured sar-

cophagi—which he wishes to dispose of for the benefit of his orphanage school. This is an opportunity to secure the best Phoenician collection ever made.

While the turbulent conditions limited the extent of our Phoenician survey very disappointingly, nevertheless we secured many archaeological and topographical data, and numerous photographs.

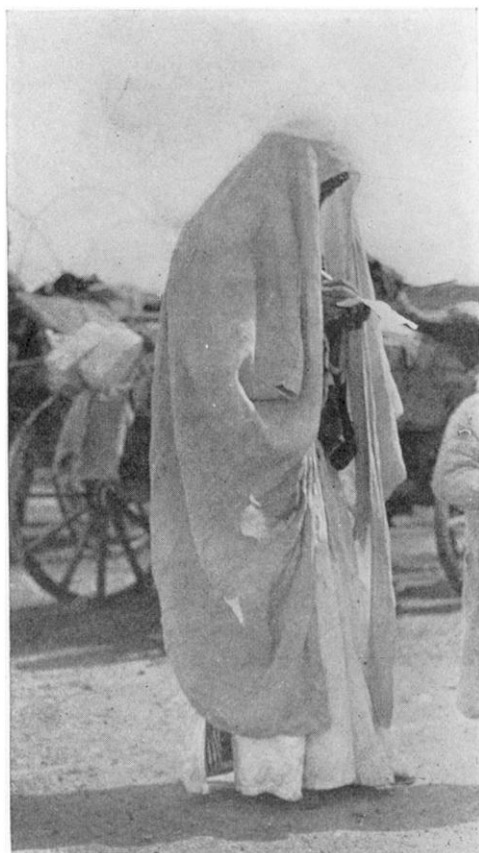


FIG. 35.—SHEIKH ŞUWÂN WRITES A LETTER TO HIS FAMILY
WITH AN AMERICAN EVERSHARP PENCIL

He rode in the wagon with Professor Luckenbill and the writer from his home in Dibni for several days, intending to go to Aleppo, though he forsook us before we arrived. It was this journey which occasioned the foregoing letter to his family written with a borrowed American pencil. Or. Inst. photo. No. 6893 by J. H. B.

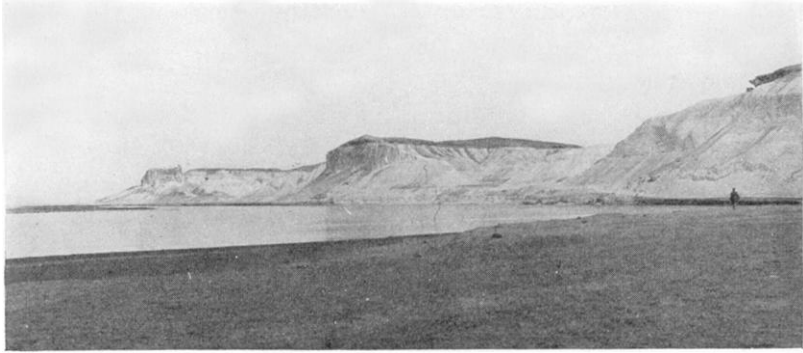


FIG. 36.—CHALK CLIFFS OF THE UPPER EUPHRATES
NEAR MESKENAH

The talus slopes and river terraces seen here have yet to be searched for the remains of prehistoric man, which there is every likelihood they contain. The country was unfortunately too unsafe for our expedition to undertake any such search. Or. Inst. photo. No. 7440 by D. D. L.

Besides a very satisfactory conference with M. Chamonard who was in charge of the French Service des Antiquités at Beyrut, I also had an interview with General Gouraud, the French high commissioner governing Syria. I am confident that any future archaeological work by our Oriental Institute in Syria will meet with cordial French support.



FIG. 37.—OUR HORSES BEING WATERED IN THE EUPHRATES
FOR THE LAST TIME, ABOVE MESKENAH, TWO DAYS'
JOURNEY FROM ALEPPO

Or. Inst. photo. No. 7441 by D. D. L.



FIG. 38.—THE NOONDAY HALT ON THE UPPER EUPHRATES.
HORSES AND DRIVERS EATING

Or. Inst. photo. No. 7455 by D. D. L.



FIG. 39.—OUR WAGONS AT A KHAN IN THE SYRIAN DESERT
BETWEEN MESKENAH AND ALEPPO

Or. Inst. photo. No. 7456 by D. D. L.

The journey by railway from Beyrut to Damascus was without incident, but our stay in Damascus was very profitable and interesting. A letter from Lord Allenby to King Fayṣal procured me an interview with the new Arab ruler, and I afterward dined with the King in company with the American consul. I learned much of value for our future relations with this region in the continuance of the work

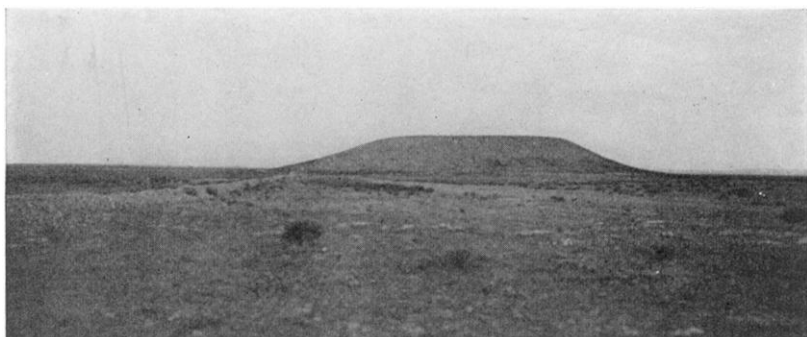


FIG. 40.—A TYPICAL SYRIAN CITY MOUND BETWEEN ALEPPO AND THE EUPHRATES

These mounds, which dot the horizon in this region in every direction have never been touched by the excavator. Or. Inst. photo. No. 7457 by D. D. L.

of the Oriental Institute. Among these experiences was a session of the new Syrian Parliament, and an interesting conference with the president of this body who called on us at the hotel. Two members of King Fayṣal's cabinet are graduates of the American College at Beyrut, and besides these gentlemen we met a number of other educated Syrians who are members of the Parliament. We listened with the greatest interest to their debates as they discussed the successive paragraphs of their tentative constitution. They gave me a copy of their Declaration of Independence, the first such document I had ever seen in Arabic.

From Damascus we made the journey through Palestine by rail. The route was directly across a disaffected region south of the Sea of Galilee, where the peaceful memories it suggested were somewhat disturbed by the sight of a brigand hanging from a telegraph pole beside the railway line. From Ḥaifa we skirted by automobile the

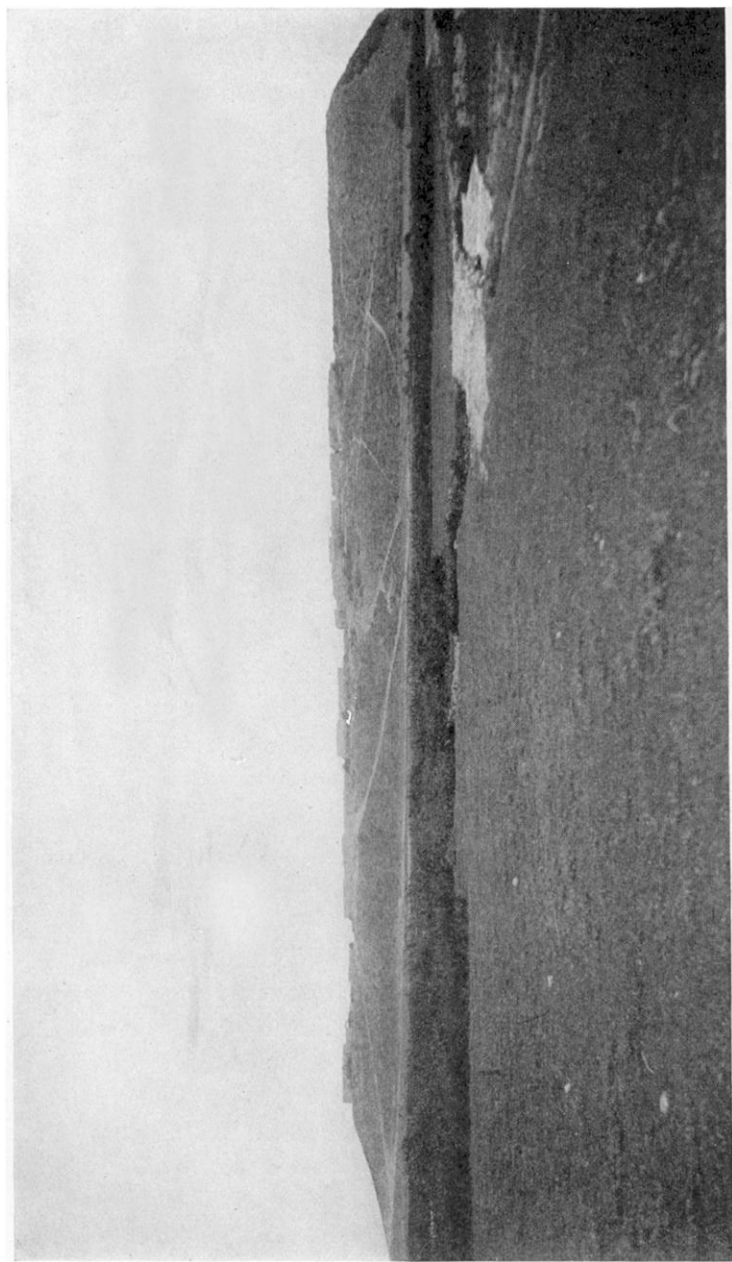


FIG. 41.—THE MASSIVE CITY MOUND OF ANCIENT KADESH ON THE ORONTES
The modern name of the mound is Tell Nebi Mandûh. Viewed from the east the buried citadel is, as usual in the Syrian mounds, at the north (right) end, which is noticeably higher. Or. Inst. photo. No. 6678 by D. D. L.

north side of the Plain of Megiddo, which was likewise rather unsafe. A stupid guide misled us so that we failed to reach Megiddo itself, although we could see the impressive mound a few miles away across the plain, and discerned what great opportunities for excavation still await the investigator there. We here had opportunity of studying the earliest great battlefield between Egypt and Asia—



FIG. 42.—THE EXPEDITION ON THE SYRIAN COAST

Or. Inst. photo No. 6874 by J. H. B.

the scene of so many dramatic struggles between the nations that it has become proverbial as *Armageddon*. It is of interest to note that although Lord Allenby's decisive victory in Palestine was won at this place, he refused to be called "Lord Allenby of Armageddon," but insisted, as he told me, on the less sensational and older form, Megiddo.

At Haifa, Messrs. Luckenbill and Nelson turned back to Beirut, for it had now become evident that our projected summer of exploration in Syria and Palestine would be quite impossible in view of the turbulent conditions. Professor Luckenbill busied himself at Beirut developing our great body of photographic exposures, which it was not safe to subject to a sea voyage back to America before developing. With the remainder of the party I went on to Jerusalem. I had a series of valuable conferences at Jerusalem with the British authorities, especially with Sir Louis Bols, commander-in-chief of the British army in Palestine, Professor John Garstang, director of

the British School of Archaeology in Jerusalem, and Captain Ernest Mackay, then engaged in the official department for the conservation of the ancient monuments. But even around Jerusalem the country was so unsafe that it was impossible to go out and inspect a ruin as near as the mound of Jericho in the Jordan Valley, and practically visible from the Mount of Olives. We found that the ancient reputation of the road from Jerusalem to Jericho was richly deserved.

For the first time in my experience the journey from Jerusalem to Cairo was now possible by rail, following the line of march of armies between Africa and Asia for five thousand years. I went with General Waters-Taylor, head of the Intelligence Department of the Imperial Staff. This offered opportunity for spending a very agreeable day in conversation with one of the best-informed men in British service regarding Western Asia.

On my arrival in Cairo, Lord Allenby asked me to go to England to report to the British government the facts which had come under our observation in crossing the Arab state. Although I had already engaged passage to America via Naples to New York, Lord Allenby not only arranged to dispose of these tickets and secure me in their stead a passage to England on the same ship with Lady Allenby, then just returning to England for the summer, but also kindly invited me to join him and Lady Allenby on their special train to the ship at Port Said. Immediately on my arrival in England the Spa Conference called the Prime Minister away and I did not see him, but I reported in conferences with the other ministers, especially with the Foreign Minister, Lord Curzon, who was very cordial and to whom I wish to express a sense of our great obligation for the generous support given our expedition.

It ought to be mentioned here that it is impossible to gather *by purchase* in Western Asia collections of the wide range and remarkable volume possible in Egypt. To expand our Asiatic collections, therefore, excavation will be necessary. For this reason the facts regarding prices of labor, the season when labor is free to leave flocks and fields, the possibilities for disposing of excavated rubbish, and items of information essential to carrying on excavations at important points in Mesopotamia, Syria, and Palestine were carefully collected.

The question of personal and official relations with controlling authorities was also given careful attention. We made the acquaintance of many officials of England and France now permanently stationed in the Near Orient, and as far as the regulations have been formulated we learned the conditions under which future work of excavation may be carried on in territory now controlled by the two powers mentioned. The British civil commissioner at Baghdad, Colonel A. T. Wilson, assured me that an expedition of the University of Chicago which might desire to excavate in Mesopotamia would be cordially welcomed. At the same time Major Bowman, director of the Department of Education (since transferred to Palestine), and temporarily in charge of such matters, also showed me the greatest kindness and expressed hospitable purposes toward our work in the future. We also established connections with a number of sheikhs and natives of influence, whose assistance would be indispensable in undertaking field work in Mesopotamia.

Not least among the results of the Asiatic expedition was the acquaintance with the archaeological remains, the geography and topography of Western Asia gained by members of the expedition. This knowledge is reinforced by a large series of photographs and plentiful field notes. An extensive series of maps, plans, and diagrams exhibiting the geography, topography, and ethnology of Western Asia prepared by the British authorities has also been acquired.

The members of the expedition have all returned more deeply impressed than ever before with the fact that the Near East is a vast treasury of perishing human records, the recovery and study of which demand a comprehensive plan of attack as well organized and developed as the investigation of the skies by our impressive group of observatories, or of disease by our numerous laboratories of biology and medicine. The fast-perishing records demand a far-reaching attack directly on the mounds covering the ancient cities and cemeteries, whence the natives by illicit digging which destroys as much as it brings forth, commonly draw the antiquities which they offer for sale. Furthermore, any ancient city with its streets, buildings, walls, gates, water-works, drains, and sanitary arrangements is itself a fascinating and instructive record of human progress

and achievement, which must be studied, surveyed, and recorded. In the same way the geology, botany, and zoölogy of the Near East must be investigated to reveal the character of the habitat and resources of the earliest civilized communities of men.

To accomplish this work there should be in the Near East headquarters an administrative center whose main object might be summarized thus:

The general administrative oversight and management of a group of local expeditions working among the remains of all the leading civilizations of the Near Orient, the regions surrounding the eastern end of the Mediterranean Sea, and extending far over into Asia, especially down to the Persian Gulf. The work of this headquarters must eventually be expanded into inner Asia, especially Persia, Armenia, and Turkestan. A *home staff*, like that of our Oriental Institute, could at the same time receive, classify, correlate, study, and publish the facts and sources discovered in the field in order to disclose and trace especially: (a) The earliest evidences of man in the geological ages and his rise from Stone Age savagery to civilization. (b) The development of the earliest civilized communities, especially in government, business, city-building, art, architecture, literature, and religion. (c) The penetration of barbarian Europe by oriental civilization and the transplanting of oriental civilization to Europe. (d) The culmination of oriental civilization in the lofty religious vision of the Hebrews and its supreme expression in the life of Jesus. (e) The later relations of the Orient with Europe, resulting in the conquest of Europe by Christianity, an oriental religion. (f) On the basis of the foregoing investigations, to produce a work on "The Origins and Early History of Civilization," which shall give the first adequate account of human beginnings and the early career of man.

The complete clearance of an ancient city like Assur by the Germans in a matter of little more than ten years (Fig. 43) furnishes us with a very instructive measuring rod by which to determine the length of time necessary for the investigation of the leading ancient sites in the Near East. As the writer has elsewhere said,¹

¹ *University Record*, VI (1920), 256.

it will be a number of centuries before the vast body of ruins surviving in Western Asia shall have been investigated "and the whole recoverable story . . . is in our hands." Nevertheless the inspection of such a completely excavated site as Assur enables the writer to repeat his conviction "that with sufficient funds and an adequate personnel, it will be possible in the next twenty-five or thirty years,



FIG. 43.—GENERAL VIEW OF ASSUR, THE EARLIEST ASSYRIAN CAPITAL, COMPLETELY EXCAVATED IN TEN YEARS

The photograph is taken from the top of the temple tower looking southward along the west bank of the Tigris over a large part of the extent of the city. The hill in the foreground is covered with a modern cemetery. The German expedition began work here September 18, 1903, and finished its main clearance in December, 1913. A few unimportant supplementary clearances were afterward undertaken in the winter of 1913-14. Or. Inst. photo. No. 7195 by D. D. L.

or, let us say, within a generation, to clear up the *leading ancient cities* of Western Asia and to recover and preserve for future study the vast body of human records which they contain."

In Western Asia the number of centers which at different times furnished enduring leadership in culture and in political power within each civilization, is not large. The complete clearance of Assur in something over ten years is a record which makes the whole question a matter of arithmetic, for a single expedition properly manned and supported can complete the investigation of three important cultural centers like Assur in a generation. A special expedition for Nineveh itself could clear up this site within the same generation. Two or three expeditions, from the different countries, working simultaneously in Babylonia and clearing three sites to a generation, would easily dispose of the very limited number of important centers,

for the Babylonian cities of the early period, or before Chaldean Babylon, are in point of size very insignificant.¹ It is unfortunately very unlikely that any expedition will undertake to complete the excavation of the city of Babylon, upon which the Germans spent nearly twenty years. The same generation devoted to the leading mounds of Syria, especially Kadesh (Fig. 41), could complete the investigation of the most important centers of culture in that region, not excepting Carchemish. In Asia Minor the same is true, and we already have a very adequate, though not exhaustive, investigation of the leading political center, the Hittite capital of Khatti, excavated by the Germans.

II. PURCHASES, INSTALLATIONS, AND DIAGRAMS

A fair account of our purchases on this expedition would be possible only in the museum hall where the most important objects are installed, and such consideration of the exhibits there as would show how they have been built up out of various combined purchases. Pending the departure of the Divinity School from the Haskell Museum building (Fig. 44) it was necessary to instal nearly all the new purchases in a single hall (Fig. 46) where they are much congested. Only a few of the outstanding purchases can be mentioned, such as the following:

The most important purchase made in Egypt is a complete group of twenty-six painted limestone mortuary statuettes representing a deceased cemetery official and the members of his family, including, besides six portraits of himself and wife, some twenty of his servants and children. As shown in Figure 45 the deceased and his wife are seen in the six portraits ranged in the top row. In the next row beneath them is the orchestra consisting of three harps and a drum. Below the music an entire row is devoted to bread-making: in the middle is a model granary with its row of cylindrical grain-bins, each marked with the kind of grain it contains,

¹ The current statement that the excavation of Niffer will still consume "fifty years" may be quite true if the excavations are led by a staff no larger than that hitherto employed therein; but if it is attacked by a staff as large and a body of workmen as numerous as those employed at Assur, there is no reason why it should not be cleared up as expeditiously as Assur was. Quibell has stated that it will take five hundred years to excavate the great Memphite cemetery of Sakkara *at the present rate!* But the present rate is due to an absurdly inadequate appropriation of government funds. Given the money and the men, there is no reason why the rate should not be increased fifty fold.

while on each side we see the grinders operating little hand mills, and the bakers sifting flour, or kneading and molding loaves. In the bottom row near the left end are a cook and a baker, the latter poking the fire in his little furnace. Next to the right are two butchers flaying a gazelle and an ox, and beside them (to the right) is the brewing of beer. At the right end is a group of two wrestlers,

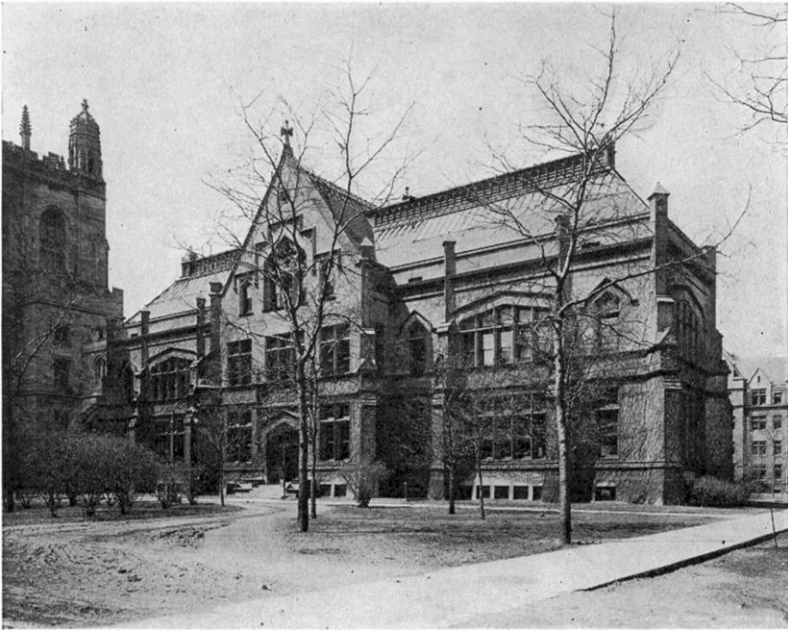


FIG. 44.—HASKELL ORIENTAL MUSEUM, WHERE THE COLLECTIONS AND THE WORK OF THE ORIENTAL INSTITUTE ARE HOUSED

and a bandy-legged dwarf with a bag over his shoulder, the household errand boy. Similarly at the left end of this bottom row are two craftsmen: one is a weazened, bony, little old man with ribs showing, who is making household pottery at a potter's wheel, while his companion is a little hunchbacked coppersmith and tinker, blowing the fire under his crucible with a blowpipe. It is evident that these two figures especially are portraits of actual members of the ancient household which this cemetery official of the Old Kingdom (about

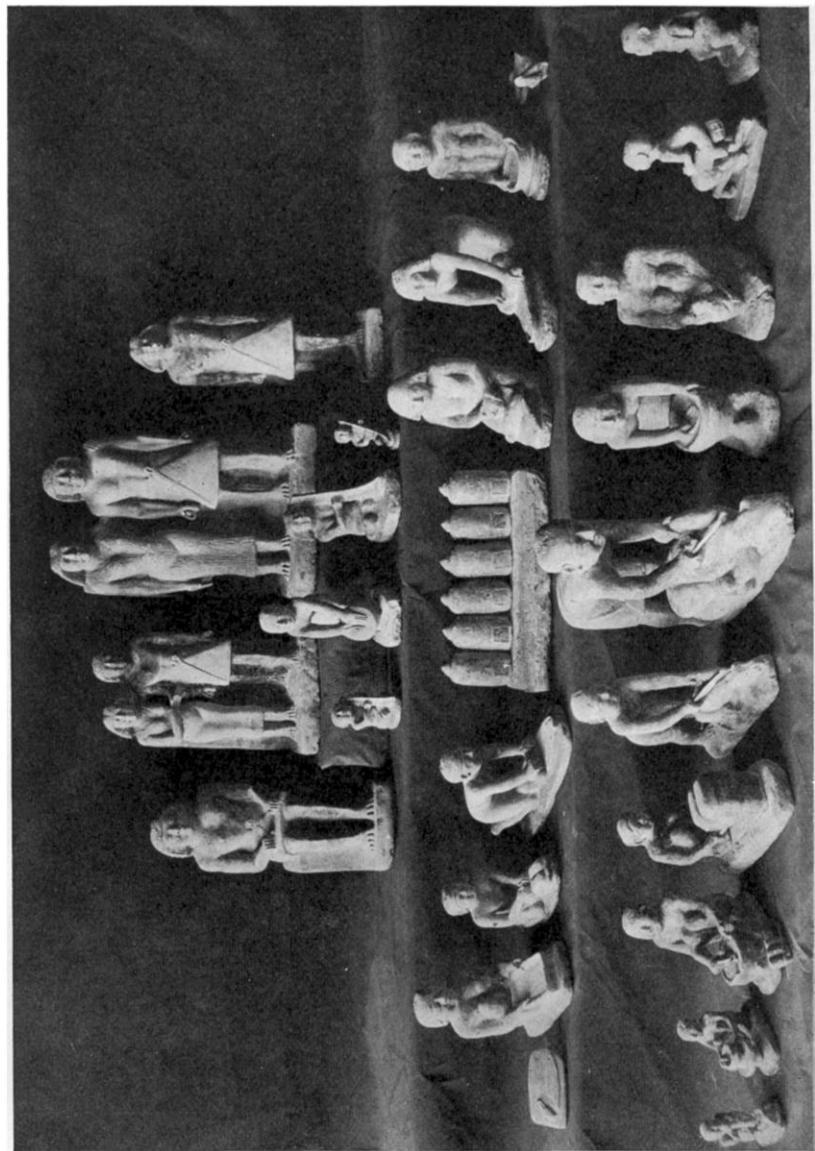


FIG. 45.—AN EGYPTIAN OFFICIAL'S HOUSEHOLD ABOUT THE TWENTY-SIXTH CENTURY B.C.
GROUP OF TWENTY-SIX STATUETTES OF PAINTED LIMESTONE,
THE EQUIPMENT OF A SINGLE TOMB

See the description in the accompanying account of Oriental Institute purchases (pp. 277 f.), No. 8020.



FIG. 46.—COLLECTIONS OF THE FIRST EXPEDITION OF THE ORIENTAL INSTITUTE.
I. GENERAL VIEW OF HALL

The installations are temporary, awaiting expansion to the ground floor. No. 9139.



FIG. 47.—THE MILBANK PAPYRUS

A hieroglyphic papyrus presented by Mrs. Elizabeth Milbank Anderson. As the photo in length. It has not yet been dated with certainty. It is illustrated with vignettes of great



OF THE "BOOK OF THE DEAD"

graph shows, the document is still in the form of a roll, which is probably some forty feet
delicacy and beauty, though not in colors.

3000–2500 B.C.) desired to take with him at death to insure his comfort in the next world, at least 4,500 years ago. They form the most extensive group of such figures ever discovered in one tomb in the Pyramid Age (about 3000–2500 B.C.).

Besides these sculptures there is a group of royal seal cylinders including the official seal of Pharaoh Snefru, builder of the great pyramid of Dahshur; and another of the famous queen Ahmose-Nofretere, whose bronze toilet mirror is described below. A fine series of some seventy-five alabaster vases includes ten inscribed with the names of various kings and queens (Fig. 48, wall case on right). Indeed our purchases are noticeably strong in stoneware. We have a group of about one hundred and fifty predynastic and early dynastic hard stone vases and other similar vessels (Fig. 48, wall case on left). Several of the early examples are quite stately in size, and one is inscribed with the name of Pharaoh Aha-Menes, the first of the Pharaohs (about 3400 B.C.).

In a group of about a hundred bronzes (Fig. 49, wall case on right) we have some sixty-five statuettes of which a number are of unusual size and some of very beautiful workmanship; a seated figure of Amon is adorned with golden jewelry and bears an inscribed dedication of Queen Shepenupet (ninth century B.C.); two of the seated figures, a Sekhmet and an Imhotep, are of silver-bronze (*potin*). Among four mirrors one bears on the handle the name of the famous queen Ahmose-Nofretere, whose seal was mentioned above. One of a series of fine bronze battle-axes (Fig. 49, flat-top case) is that of an Egyptian army officer, with wooden handle and leather thong lashings still in perfect preservation since the Egyptian empire (1580 to twelfth century B.C.).

A notable acquisition is a beautifully written papyrus roll of the *Book of the Dead*, with black and white vignettes of unusual delicacy and refinement. It is probably of Saitic date, of the seventh or sixth century B.C., probably the best manuscript of this book as yet brought to America. It is the gift of Mrs. Elizabeth Milbank Anderson, of Greenwich, Connecticut, and will be called in her honor "Papyrus Milbank" (Fig. 47). This manuscript is written in hieroglyphic and together with a hieratic copy from Paris (see Papyrus Ryerson mentioned above) gives us fine examples of both types of manuscript.

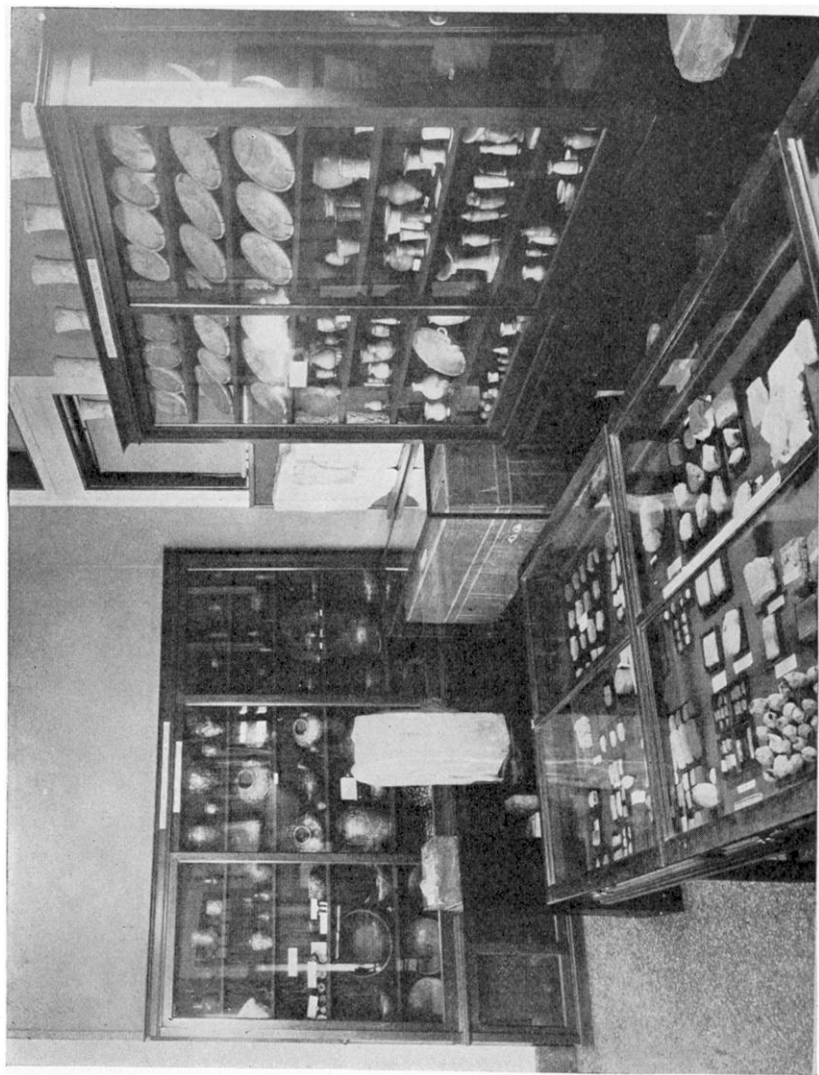


FIG. 48.—COLLECTIONS OF THE FIRST EXPEDITION OF THE ORIENTAL INSTITUTE.
III. SOUTHWEST CORNER OF HALL. TEMPORARY INSTALLATION

No. 9138.



FIG. 49.—COLLECTIONS OF THE FIRST EXPEDITION OF THE ORIENTAL INSTITUTE.
II. SOUTHEAST CORNER OF HALL. TEMPORARY INSTALLATION

No. 9140.

Among miscellaneous materials may be mentioned a series of four variegated glass bottles in blue, white, and yellow, representing the earliest stages of the glass-vessel industry (fourteenth century B.C., Fig. 49, left wall case); a group of some twenty-five sculptor's model studies in limestone; the official marriage announcement of Amenhotep III and his Queen Tiy, engraved on a large glazed scarab beetle (about 1400 B.C.); a group of some fifty glazed fayence statuettes and amulets; and especially the Timins Collection of stone weapons and implements (Fig. 49, flat-top case), a series of over sixty fine pieces, which together with a number of others found elsewhere, gives our Oriental Institute the leading collection of Egyptian Stone Age industries in America. Two interesting objects, perhaps found together, are a wooden statue of a Theban noble (date questionable, but probably 2300 to 2000 B.C., Fig. 46, back wall case) of about one-third life-size, standing leaning on a spear; and a life-size wooden chair inlaid with ivory and ebony (probably of later date, same case). Besides a handsomely painted mummy-form coffin of the tenth century B.C. (Fig. 49), there are many historical documents in the form of statues, reliefs, and inscriptions on stone from the oldest period down to Greek times (Figs. 46, 48, 49), including also a series of 258 cuneiform tablets from Asia, but purchased in Cairo. Finally there is a large body of small objects for the study of Egyptian arts and crafts, making a considerable collection of the usual types.

Of our purchases in Western Asia one of the most important was a portion of the *Royal Annals of Sennacherib* (Fig. 50). In form the document is a six-sided prism of pale fawn-colored terra cotta, or baked clay, hard and firm and in perfect preservation. Six columns of beautifully written cuneiform fill the six faces of the prism, making a superb museum piece. In content it records the great campaigns of the famous Assyrian emperor, including the western expedition against Jerusalem on which he lost a great part of his army—a deliverance for the Hebrews which forms the supreme event in the life of the great statesman-prophet Isaiah. It is a variant duplicate of the Taylor Prism in the British Museum, but was seemingly written two years earlier under another eponym. The nature, extent, and value of the variants can only be determined

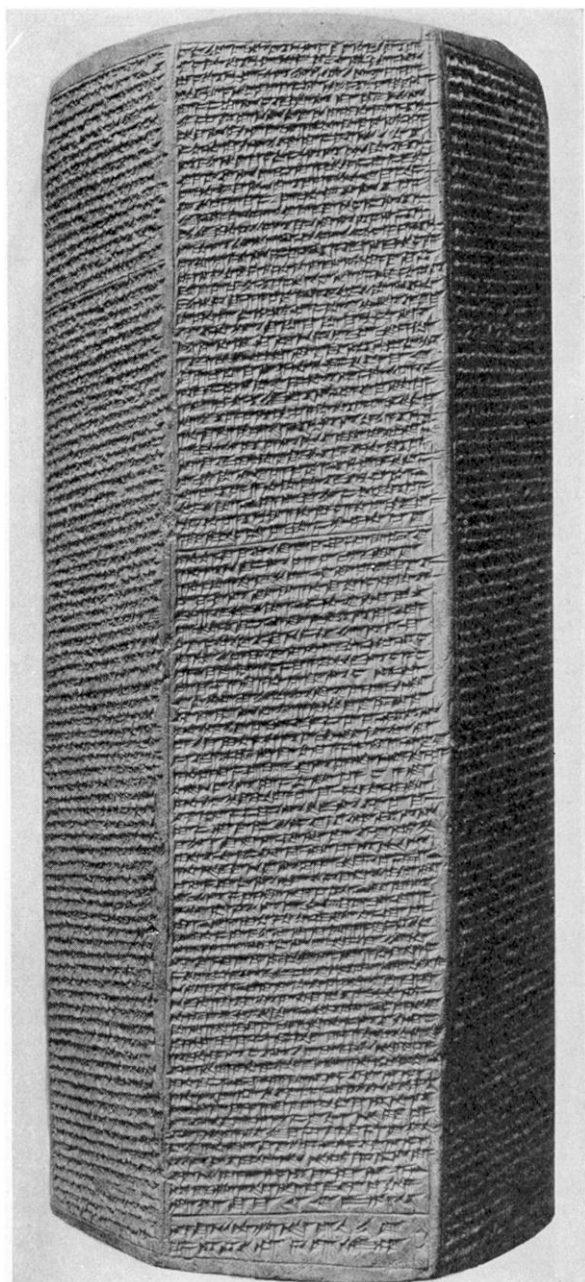


FIG. 50.—THE ROYAL ANNALS OF SENNACHERIB:
SEVENTH CENTURY B.C.

A hexagonal prism containing a cuneiform record of the western campaigns of Sennacherib, including the expedition against Palestine on which he lost his army, as narrated in the Old Testament.

by an exhaustive comparison. Besides its scientific usefulness it forms an exhibit of primary value to our students and of unique interest to the public.

Of other cuneiform documents our purchases comprise nearly if not quite a thousand tablets of varying content (Fig. 48, flat top case), including some that are literary and grammatical. Among works of art, besides two early Babylonian statuettes of copper, we have a series of beautifully cut stone cylinder seals, of which the best is one of the finest examples of lapidary sculpture yet found in Babylonia.

While in Baghdad, I had accidentally learned of an ancient cuneiform record on gold which had been sent by a Baghdad owner to an obscure Paris dealer for sale. I took advantage of the journey to England therefore to run over to Paris for a few hours and succeeded with some difficulty in locating the piece. It is a small tablet of pure gold engraved on both sides with a cuneiform record of the restoration of the wall of Assur by Shalmaneser III (859-825 B.C.), accompanied by a summary of his great wars. It was presumably deposited under the portion of the city wall rebuilt by King Shalmaneser, but the modern dealer knew nothing of the place in which it had been found. Among the Paris purchases was also a group of cuneiform records on clay, including royal annals of the Chaldean age, and five very interesting tablets inscribed with archaic picture-writing, out of which the cuneiform grew up.

While the collections which the first expedition of the Institute has brought together are primarily for the purpose of furnishing research materials, it will be the endeavor of the Institute to use them also for visualizing the origins and the successive stages marking the progress of early culture as illustrated by its leading activities, especially such as writing, building, and the whole range of industries, or by customs such as burial practices. The presentation of ancient culture as a progressive process, may be largely accomplished by a chronological arrangement of the original monuments, both within each show case and from case to case (Figs. 45-49,) a plan not yet permanently practicable in our building until the Divinity School shall have shifted to its new quarters. It may also be done by modern restorations combined with originals (Fig. 51), by diagrams



FIG. 51.—REPRODUCTION OF AN ARCHAIC EGYPTIAN BURIAL OF THE FIFTH MILLENNIUM B.C.

This predynastic grave has been built into an exhibition case by the Museum preparator. The body, found by Dr. George A. Reisner at Naga ed-Deir, was kindly donated by the excavator. The pottery and other objects are a gift by Professor W. M. F. Petrie from his excavations.

(Fig. 52), or by a combination of all these methods, inserting case numbers in such a diagram as Figure 52. Where the original materials for illustrating a given sequence exhibit gaps, these gaps may be filled by the use of reproductions and drawings. In attempting a sequence of prehistoric industries we have had the generous co-operation of the National Museums of France for which we are very grateful (see Section VII, 4).

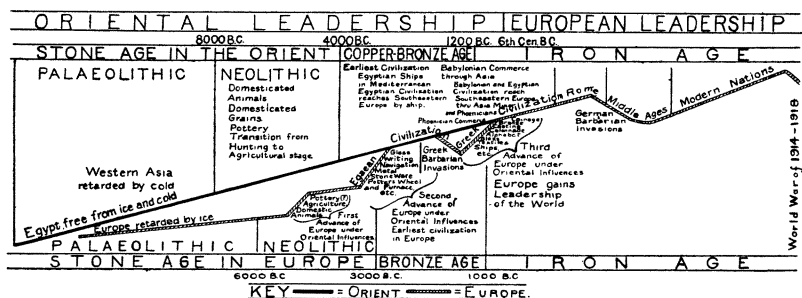


FIG. 52.—DIAGRAM VISUALIZING THE RISE OF CIVILIZATION IN THE ORIENT AND ITS TRANSITION THENCE INTO EUROPE

First published by the writer as part of the "William Ellery Hale Lectures" in the *Scientific Monthly*, March, 1920, page 267. It is proposed to produce a considerable number of such diagrams and to insert in them at the proper points the numbers of the Museum cases which illustrate the stage of civilization at the point in the diagram where the case number stands. Drawn on a large scale these diagrams will then be hung at appropriate places in the Museum halls. Combined with these there will also be chronological tables containing these same case numbers similarly distributed in the table.

III. THE ASSYRIAN-BABYLONIAN DICTIONARY

Oriental science has made merely a beginning in the great task of recovering the story of the origins and early development of civilization among the ancient peoples of Western Asia. Nevertheless it is now evident to all thinking orientalists that the civilization of Europe was built up to no small extent on the basic civilized achievements of the peoples of this region. This is true not only because of the influence of Hebrew and Christian religion, but likewise in art, literature, government, society. It is especially true also in economic, business, and commercial life, which transmitted to Europe and eventually to us the fundamental processes and forms of business. It was especially the great commercial civilizations of Western Asia

which first began the complicated task of devising the fundamental methods of doing business, and when they themselves had learned business system with all the various documents which make it possible, primitive Europe profited by their experience. These general facts emerge clearly enough from the vast masses of cuneiform records and documents in various languages, which we may now follow from Sumerian, Babylonian, and old Persian on the east, westward through Assyria and various western dialects, chiefly Semitic, in Syria and Palestine, to the so-called Hittite dialects of Asia Minor on the west, not to mention Vannic and other languages of the region on the north of Mesopotamia.

This situation demands not only carefully conducted field expeditions permanently organized, but also an organized attack on a number of large tasks indispensable to a proper understanding of the large body of cuneiform documents already available in the museums or in published form. While the memorable decipherment of cuneiform by Sir Henry Rawlinson in 1850 enabled modern scholars for the first time to read Old Persian, Babylonian, Assyrian, and eventually other important languages of Western Asia, it did not, of course, meet the need for a comprehensive dictionary. To satisfy this need the pioneer students of cuneiform made praiseworthy efforts. Every investigator who accomplished anything of consequence gradually built up a personal dictionary, usually in the form of a card glossary, drawn from the documents as fast as he could read and understand them. In studying ancient documents which modern scholars are just beginning to read, the investigator inevitably meets new words which he does not understand. The majority of such obscure words fall into more or less specialized groups, like terms for diseases, medicines, bodily organs, minerals, plants, animals, social classes, legal processes, business and legal transactions, architectural forms, parts of buildings or of ships, and so on, besides many other words current even in general and common usage. The volume of documents quickly outran the ability of any one scholar to go through them and study the new words. Special glossaries appended to a newly published document or group of documents, word studies scattered through journals and monographs in half a dozen modern languages, while they have

added greatly to modern knowledge, have made it increasingly difficult for the individual worker to bring all these new bodies of fact "under one hat." What has been even more serious in its consequences is the fact that in such a situation erroneous renderings, originally mere guesses, have become current, resulting in totally misleading translations for words and phrases with which the unsuspecting modern translator has considered himself familiar since university student days. Every thoughtful orientalist knows very well that he is involved in this difficult situation, whether he is translating Asiatic cuneiform or Egyptian hieroglyphic documents. Although aware of his predicament, the most conscientious investigator of these ancient documents is quite powerless single-handed to extricate himself. We have had a number of such individual efforts, all of them most praiseworthy, and deserving of the fullest recognition.

The earliest of these attempts to meet the needs of the pioneer Assyriologists for some kind of a dictionary are very interesting. As far back as 1855, as Dr. Maynard has mentioned to me, only five years after Rawlinson's announcement of his decipherment, the Frenchman, de Sauley, published a little cuneiform glossary, covering nearly ninety pages, in the *Journal Asiatique*. It is entitled "Lexique de l'Inscription Assyrienne de Behistoun" and is printed in cuneiform type, then already available. In the year 1922, when the centenary of the foundation of the Société Asiatique is being celebrated, it is a great pleasure to commemorate this earliest of the cuneiform dictionaries, the work of a French scholar.

In 1866, about sixteen years after the decipherment by Rawlinson, Mr. Edwin Norris published what he called a "Specimen of an Assyrian Dictionary" in the *Journal of the Royal Asiatic Society*. It occupied thirty-two pages. Referring to this attempt the aged Norris says: "Many years must necessarily elapse before an approach can be made to completeness in such a work, and the best Assyrian decipherers are most assured of the vague character of their interpretations, whenever the subject goes much beyond plain narration, or whenever words of infrequent occurrence are made use of." A few weeks later Mr. Norris unexpectedly received an offer of funds for the publishing of his complete dictionary and, although he was a man of advanced age, he accepted the offer and proceeded with

the work of editing and publication. The first volume was issued in 1868. In the Preface, Norris modestly quotes a statement which Max Mueller had included in the prospectus of his translation of the Vedic hymns: "With every year, with every month, new advances are made, and words and thoughts, which but lately seemed utterly unintelligible, receive an unexpected light from the ingenuity of European students. Fifty years hence I hope that my own translation may be antiquated and forgotten. No one can be more conscious of its short-comings than I am."

Norris' pioneer effort was never carried beyond the third volume, which was issued in 1872. It brought the work up to the letter "N"—1,068 pages. Meantime a useful little glossary of 139 words likewise had been published in the *Journal of the Royal Asiatic Society* for the year 1868. It was the work of one of the prominent pioneers of cuneiform decipherment, Mr. H. F. Talbot, which he modestly entitled "Contributions toward a Glossary of the Assyrian Language." The method by which these early dictionaries were compiled is indicated in an interesting remark by Mr Talbot: "I have been very careful to refer to passages in which the words are found, so as to enable anyone to verify their accuracy."

The enthusiasm of the heroic age of decipherment declined in England after the beginning of the 70's and the interest in dictionary enterprises waned. In the 80's it awoke in Germany, where in 1886 Strassmaier published an alphabetic list of Assyrian and Akkadian words. A much more ambitious work shortly followed in the *Assyrisches Wörterbuch* of Friedrich Delitzsch, which indicated in its title that it covered all the cuneiform literature available in published form. Delitzsch was unable single-handed to carry out and complete a work of this scope and before it had reached the end of *aleph*, the first letter of the Semitic alphabet, he abandoned the enterprise with the publication of the fourth part, making a total of 488 pages. In an abridged form Delitzsch succeeded in completing his dictionary in 1896, when it was published as his *Assyrisches Handwörterbuch*. In the twenty-six years since it appeared this dictionary has been of invaluable service to orientalists all over the world. It did not, however, cover all the available materials at the time of its appearance and in the twenty-six years since then a large body of new documents

has been published. Special glossaries and supplements like Meissner's very useful *Supplement zu den Assyrischen Wörterbüchern* have endeavored to furnish the needed consideration of the new documents. In 1905 Dr. Muss-Arnolt completed his useful *Concise Dictionary of the Assyrian Language*, which had begun to appear as early as 1891.

This discussion of the need of an Assyrian dictionary makes no pretense to do anything more than call attention to the fundamental fact that all of the attempts to produce such a dictionary have heretofore been really the effort of one man. That is, each such dictionary has been a "one-man job," in which the solitary editor has, so far as the present writer knows, made no effort to apply or introduce mechanical helps of any sort. A list of the outstanding lexicographical compilations at present available will be found in the footnote below.¹

All honor to the tireless devotion of the men who produced these invaluable tools without which our present knowledge of the early civilizations of Western Asia would have been impossible! Delitzsch's *Handwörterbuch* will long continue to be indispensable on the table of every orientalist, and with its predecessors and supplements will always remain an impressive monument to the scholarship and devotion of the great orientalists whom we gratefully revere as their authors.

The remarkable advance in the method and technique of dictionary-writing during the last generation, however, lays a new

¹ F. De Saulcy, "Lexique de l'Inscription Assyrienne de Behistoun," *Journal Asiatique*, 5^{ème} Ser., Tome V, 1855, pp. 109-97; Edwin Norris, "Specimen of an Assyrian Dictionary," *Journal of the Royal Asiatic Society*, 1866, pp. 225-56; H. F. Talbot, "Contributions towards a Glossary of the Assyrian Language," *Journal of the Royal Asiatic Society*, 1868, pp. 1-64; Edwin Norris, *Assyrian Dictionary*, Part I (1868), Part II (1870), Part III (1872); J. N. Strassmaier, *Alphabetisches Verzeichniss der Assyrischen und Akkadischen Wörter*, 1886; Friedrich Delitzsch, *Assyrisches Wörterbuch zur Gesammten bisher Veröffentlichten Keilschriftliteratur*, Lieferung I-III, 1887-90; Rudolph E. Brünnow, *A Classified List*, 1889, *Indices*, 1897; Charles Fossey, *Contribution au Dictionnaire Sumérien-Assyrien*, 1907; Bruno Meissner, *Seltene Assyrische Ideogramme*, 1910; W. Muss-Arnolt, *A Concise Dictionary of the Assyrian Language*, 1894-1905; Frederich Delitzsch, *Assyrisches Handwörterbuch*, 1896; Bruno Meissner, *Supplement zu den Assyrischen Wörterbüchern*, 1898; Knut Tallqvist, *Neubabylonisches Namenbuch*, 1902, and *Assyrian Personal Names*, 1914; Antonius Deimel, *Pantheon Babylonicum*, 1914; Carl Bezold, *Historische Keilschrifttexte aus Assur*, *Zettelpuben des Babylonisch-assyrischen Wörterbuchs der Heidelberger Akademie der Wissenschaften*, 1915, and "Babylonisch-Assyrisch alāku 'gehen,'" *Sitzungsberichte der Heidelberger Akademie der Wissenschaften*, Jahrgang 1920, 16. Abh.

obligation upon the shoulders of this generation of orientalist. Such a monumental dictionary enterprise as the great Murray dictionary of the English language, at Oxford, has contributed to demonstrate more and more conclusively that all dictionaries must be written on the basis of a fundamental principle long casually recognized and sporadically employed by students of language.

As far back as the year 1857 the (British) Philological Society passed a resolution to compile a new English dictionary which should "begin at the beginning and extract anew typical quotations for the use of words from all the great English writers of all ages. . . . Several hundred readers accordingly entered on the task of selecting and transcribing these quotations . . . till upwards of two million quotations had been amassed." By 1881 about three and one-half millions of quotations were on hand. The editors determined to illustrate the growth and development of the English language "by a series of quotations ranging from the first known occurrence of the word to the latest."¹

It will be seen from these statements of the method adopted by the editor and his collaborators that the meanings of all English words were to be determined by usage as a matter of history. It was recognized that both in form and meaning each word in the language had a history and sometimes a very long history, at least long for English, so that the meaning in one century might diverge noticeably from that in another. The meaning in each case was to be derived from the context, necessitating the collection of "quotations." The word was to be judged and appraised in every case from a study of the context. This method is clearly set forth in a further statement of the editor: "To a great extent the explanations of the meanings have been framed anew upon a study of all the quotations for each word collected for this work, of which those printed form only a small part."²

The decisive value of the context recognized by the distinguished editor of the Oxford dictionary determines the method of work and is really erected into a principle. While no editor, in recognizing

¹ A new English Dictionary edited by James A. H. Murray: Oxford, 1884. Volume I. Preface dated 1883, pp. iii ff.

² *Ibid.*, Vol. I, p. xxxi.

the value of this principle, will ignore the usefulness of other sources of light, it has become increasingly evident that in the case of an ancient language the editor of a dictionary must have before him *every occurrence of the word in the extant documents, together with its context*, before discussing its meaning. In compiling the dictionary of an ancient language, then, it will not suffice to refer to every

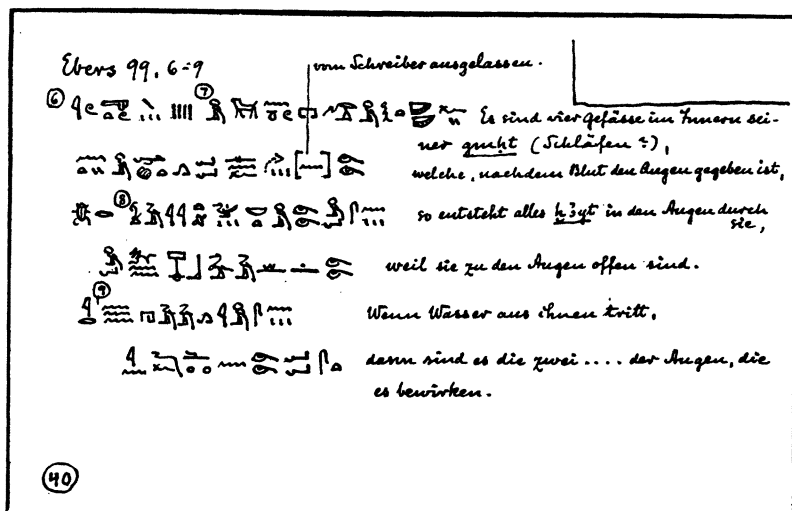


FIG. 53.—EGYPTIAN DICTIONARY CARD BEFORE BEING MARKED
BY THE EDITOR FOR FILING

The paragraph of original text is at the left, the translation at the right. In the upper right-hand corner is the blank for editorial insertion of the cue word. These cards are 11×17 cm. (about 4½×7½ inches).

passage in which a given word occurs, by mere citation of "chapter and verse"; *the practical procedure must include the filing, not only of every occurrence of every word, but with it in every case likewise the accompanying context.*

The new Egyptian dictionary, in which an international group of scholars has co-operated for a quarter of a century under the general editorship of Adolf Erman, has from the first employed this system, which is best illustrated by the accompanying reproductions of the cards (Figs. 53 and 54). It was possible for the editor of the

sentence with the original. The collaborator writes this card with lithographic ink, so that it may be manifolded by the printer in facsimile, the printer furnishing as many copies of the card as there are words in the paragraph and a few more for use in case of accident, making, let us say, forty cards such as the reader sees in Figure 53. Taking these forty cards, the editor underscores the first word of the paragraph and inserts that word also in the blank in the upper right-hand corner left for this purpose. This insertion in the blank is done in a transliteration in Latin letters, as will be seen in Figure 54. It is the cue word under which the card is alphabetically filed. This same process is then carried out for the second, for the third, for the fourth, and for all the remaining words of the paragraph (Fig. 54 shows fifth word underscored) with the result that every word in the paragraph is eventually filed, together with its context. It will be seen that a word at the beginning of the paragraph or at the end may lack the preceding or following context. A translation of this context or an indication of its purport is therefore inserted both before and after the paragraph by the collaborator before the card is manifolded. When the filing is completed and all the documents of the language have been thus incorporated into the alphabetically organized materials, the final editing of the work and the writing of the articles on the successive words may be undertaken. The editor will then have before him every occurrence of a given word, from the Pyramid age reaching back to 3000 B.C., down to the Christian Era—a period of over 3,000 years. In its successive meanings, as these developed from century to century, and in its modified forms resulting from centuries of linguistic change, the history of the word, exhibited in all its known examples, will thus enable the editor to write as final and decisive an article concerning the word as the surviving materials of the language will permit.

The plans of the Oriental Institute for an Assyrian-Babylonian dictionary have been built up on the basis of past experience as accumulated especially in the compilation of the two dictionaries mentioned. It was evident in making these plans that the work of a single devoted scholar, such as has produced the Assyrian dictionaries of the past, must be expanded and carried on by a permanent

office staff, assisted by a group of outside collaborators. This entire personnel must furthermore be supplemented by a complete mechanical equipment, especially for manifolding and filing, so as to reduce the clerical and manual labor to a minimum. Professor D. D. Luckenbill, Assyriologist of the University of Chicago and of the Oriental Institute, was appointed to take full charge of the entire dictionary project, and as his chief assistant, Dr. John H. Maynard, was made Secretary of the Assyrian Dictionary Staff. To assist these gentlemen two orientalist, graduate students of the Department of Oriental Languages, and a stenographer formerly on the Oriental Institute Staff were permanently assigned to the work of the dictionary, making a resident staff of five people. As non-resident collaborators the Oriental Institute has been fortunate in securing the co-operation of Professor Leroy Waterman, of the University of Michigan, Professor S. A. B. Mercer, of Western Theological Seminary, and Professor Theophile J. Meek, of Bryn Mawr College. It is perhaps worthy of mention that, with the exception of Professor Mercer, who has a European degree, all of the dictionary staff, resident and non-resident, are Doctors or students of the Department of Oriental Languages in the University of Chicago.

The unavoidable delay in the building plans of the University has resulted in such congestion in Haskell Oriental Museum, that it proved necessary to instal the dictionary work in the basement of the building. Here a commodious office has been built in, fitted with light, heat, and ventilation and properly equipped (see Figs. 58 and 59). The system of work which has been developed under Professor Luckenbill's direction since October 1, 1921, is now functioning efficiently and rapidly. As in the case of the Egyptian dictionary described above, the new Assyrian dictionary is planned to incorporate into its files, for the first time in such an enterprise, all the cuneiform documents now available.¹ In preparing this material for the files, the resident staff has thus far furnished the bulk of the cards, making a large nucleus, and developing all the

¹ For the present no systematic effort will be made to include the Sumerian or any other non-Semitic languages written in cuneiform.

details of the system on the basis of which, and in conformity with which, the collaborators will be able to carry on their work with accuracy and precision from the start. As in the Egyptian dictionary each document is divided into a series of paragraphs, containing, in the case of the cuneiform documents, not more than fifty words. When the document has been so arranged and each paragraph has been supplied with a careful translation, the pages or sheets containing this material are mounted in a "Line-a-Time" rack, in which the marker clearly indicates to the operator the successive lines to be copied. At this point the Assyrian dictionary enjoys a great advantage over the Egyptian: the Egyptian hieroglyphic had to be hand copied, whereas a transliteration into Latin letters is sufficient for the Assyrian, without reproducing the signs of the cuneiform original. Special type shuttles have been cut by the Hammond Typewriter Company furnishing all the signs and diacritically marked letters needed for full transliteration of the cuneiform. It is thus possible to write the copy for the Assyrian dictionary cards on the typewriter. These typewriters (marked *F*) are shown in Figure 58 together with the "Line-a-Time" racks (marked *G*).

This typewriter copying is done for the Assyrian dictionary on a form of card designed by Professor Luckenbill. It is much more elaborate than that employed for the Egyptian dictionary, as will be seen in Figure 55. These cards, as shown in Figure 55, are furnished by the printer. Student members of the staff receive the paragraphed translations and transfer them by typewriter to these cards. In general the arrangement of the material on the card is like that employed in the Egyptian dictionary explained above. The cuneiform transliteration is written at the left and the corresponding translation at the right (Fig. 56). The ink ribbon used is specially prepared for manifolding purposes. The copyists then hand in their finished cards for careful proofreading, in order to avoid all clerical errors in copying. After this proofreading each card is ready for manifolding. This is done with a duplicator, which furnishes errorless, because mechanically produced, copies (Fig. 56) of the original card as made on the typewriter. The duplicator and the piles of cards will be seen marked *H* and *I* in Figure 58.

File Under	Writing { Ideogr. " w ph. Comp.	Syl, List, Gram, School Rel (Hymn, Prayer, Psalm, Lit, Rlt, Omen, Incan, Hemenel) Lit (Epic, Prov, Fable) Hist, Chron, Business, Legal, Law, Medical, Math, Astrol.

NOUN, ADJ, PART. INF.		PERSONAL PRONOUN		PRONOMINAL SUFFIX		PRONOUN		VERB (strong.)		(ind. gen.) (pr. nun)		(pr. gen.) (ind. gen.) (ter. int.) (pr. w. & l) (quadr.)	
sg. pl.	du.	nominative gen-acc	sg. pl.	noun verb	sg. pl.	Demonstr.	sg. pl.	1st	2nd	3rd	1, 1, 2, 3,	II, 1, 2, 3, III, 1, 2, 3, IV, 1, 2, 3,	
nom		1st		1st				mas	1st	Present			
gen		2nd		2nd		Rel.		fem	2nd	Preterite			
acc		3rd		3rd		Inter.		neut	3rd	Imperative			
mas	fem	com	mas	mas		Indef.		mas		Infinitive			
PROPER NOUN (incl. gentilic)				NUMERALS				emphatic		Participle			
male	god	star	city	mount.	cardinal	adverbial	dep. clause		Permansive				
female	goddess	temple	land	stream	ordinal	adjectival	ADVERB { encl		PREPOSITION		CONJUNCTION		
underworld				fraction		distributive							

FIG. 55.—BLANK CARD FORM DEVISED FOR THE ASSYRIAN-BABYLONIAN DICTIONARY
BY PROFESSOR LUCKENBILL

This card is furnished by the printer as seen above. It measures 5×8 inches, a standard size for use in current filing drawers.

File Under		Writing { Ideogr. " w ph. Comp.		Syl. List, Gram, School Rel (Hymn, Prayer, Psalm, Lit, Riti, Omen, Incant, Heterogl) Lit (Epic, Prov, Fable) Hist, Chron, Business, LegalAssyr. Code Law, Medical, Math, Astron.		KAV. I, COL. III.	

File Under		Writing { Ideogr. " w ph. Comp.		Syl. List, Gram, School Rel (Hymn, Prayer, Psalm, Lit, Rit, Omen, Incan, Hemi-rel) Lit (Epic, Prov, Fable) Hist, Chron, Business, Legal, Assyri. Code Law, Medical, Math, Astro.					
nadānu				KAV. I, COL. III.					
(24 Cont'd)		2123		(But if the master of the house) 63) knew (that a man's wife) was dwelling { in his house with his wife), 64) he shall pay threefold. 65) But if he denies (it), 66) says: "I did not know," 67) they shall go to the river. 68) And if the man in whose house 69) a man's wife was dwelling, 70) returns from the river, 71) threefold he shall pay. 72) If the man whose wife (of her own accord withdrew herself) from his presence					
63) us-bu-tu-u-ni i-[di]									
64) 3 a-te i-id-da-an									
65) ū šum-ma it-te-ki-e-ir									
66) la-a i-di-e-ma i-ka-ab-bi									
67) a-na i-id il-lu-u-ku									
68) ū šum-ma amēlu ša aššat(at) amēli									
69) i-na bti-šu us-bu-tu-u-ni									
70) i-na i-id it-tu-u-ra									
71) 3 a-te i-id-da-an									
72) šum-ma amēlu ša aššat-su i-na pa-ni-šu									
NOUN, ADJ. PART. INF.		PERSONAL PRONOUN		PRONOMINAL SUFFIX		PRONOUN		VERB (streng.) (md. gmd.) (pr. gmd.) (md. gmd.) (ter. inf.) (pr. w&d) (quadr.)	
sg. pl. du.		nominative gen-acc		sg. pl.		noun verb		sg. pl.	
nom		1st				1st		mas	
gen		2nd				2nd		fem	
acc		3rd				3rd		neut	
mas		fem		com		mas		fem	
PROPER NOUN (incl. gentile)		mas <th colspan="2">fem<th colspan="2">mas<th colspan="2">fem</th></th></th>		fem <th colspan="2">mas<th colspan="2">fem</th></th>		mas <th colspan="2">fem</th>		fem	
male <th colspan="2">god<th colspan="2">star<th colspan="2">city<th colspan="2">mount.</th></th></th></th>		god <th colspan="2">star<th colspan="2">city<th colspan="2">mount.</th></th></th>		star <th colspan="2">city<th colspan="2">mount.</th></th>		city <th colspan="2">mount.</th>		mount.	
female <th colspan="2">goddess<th colspan="2">temple<th colspan="2">land<th colspan="2">stream</th></th></th></th>		goddess <th colspan="2">temple<th colspan="2">land<th colspan="2">stream</th></th></th>		temple <th colspan="2">land<th colspan="2">stream</th></th>		land <th colspan="2">stream</th>		stream	
underworld <th colspan="2"><th colspan="2"><th colspan="2"><th colspan="2">fraction</th></th></th></th>		<th colspan="2"><th colspan="2"><th colspan="2">fraction</th></th></th>		<th colspan="2"><th colspan="2">fraction</th></th>		<th colspan="2">fraction</th>		fraction	
								adverbial	
								adjectival	
								distributive	

FIG. 57.—MANIFOLDED CARD OF THE ASSYRIAN-BABYLONIAN DICTIONARY AFTER EDITING

The editor has inserted the cue word by which it is to be filed, in the upper left-hand corner. The word itself, *i-id-da-an*, is under-scored in line 64, and its translation likewise. In the grammatical tables below, the editor has also identified the word grammatically by checking off the proper forms enumerated in the table.

It is at this point that the process of dictionary editing more specifically begins. Each group of fifty cards representing each paragraph is now ready for further editorial work. If the document contained twenty paragraphs, these twenty paragraphs are now distributed on a thousand cards, fifty for each paragraph. At this stage, therefore, the document is rather bulky, but it must now go back to the editor or collaborator who translated and paragraphed it. For this purpose strong cases have been specially prepared in which to express such cards to the collaborator if he happens to be a non-resident member of the staff. A few of these cases, marked *D*, will be seen in Figure 59. As explained in discussing the Egyptian dictionary, the collaborator takes each paragraph, now available in fifty copies, and underscores the first word on the first card, the second word on the second card, and so on. At the same time the word illustrated is entered by hand in the blank in the upper left-hand corner, marked "file under" (Fig. 57). This cue word insures the filing of the card in the proper place in the alphabetical files. Professor Luckenbill has further devised a grammatical diagram which is printed at the bottom of every card (Fig. 55). In this diagram the collaborator checks off the proper blank, indicating the grammatical classification of the word—a precaution which will greatly aid in securing correct translations, as well as in other directions. When so worked over by the collaborator, each of the thousand cards appears as in Figure 57 and is ready for filing.

Considerable bodies of such materials collect and are kept in temporary storage boxes, marked *B* in Figure 59. From these they pass into desk file boxes (*C* in Fig. 59), whence they are shifted to the permanent alphabetical file drawers (*A* in Fig. 59). It was not until October 1, 1921, that the system was set in operation, yet by January 1, 1922, 2,000 cards per week were being distributed in the alphabetical files. By June 30, 1922, the total number of alphabetically distributed cards will be about 75,000, in addition to about 8,000 guide cards indicating that the dictionary materials contain about 8,000 words. Of these about 3,000 are proper names and Sumerian words from the syllabaries and bilinguals. The remainder, about 5,000, are Assyrian-Babylonian (Akkadian) words. The rate mentioned, 2,000 cards per week, can be doubled by a 25



FIG. 58.—OFFICE OF THE ASSYRIAN-BABYLONIAN DICTIONARY.
SOUTHWEST CORNER

The processes of manifold are illustrated: *F*, Hammond typewriters with specially cut characters; *G*, "Line-a-time" racks; *H*, duplicator; *I*, cards. No. 9133.



FIG. 59.—OFFICE OF THE ASSYRIAN-BABYLONIAN DICTIONARY,
SHOWING FILES

A, alphabetical files; *B*, storage; *C*, temporary storage; *D*, shipping cases for outside collaborators. No. 9132.

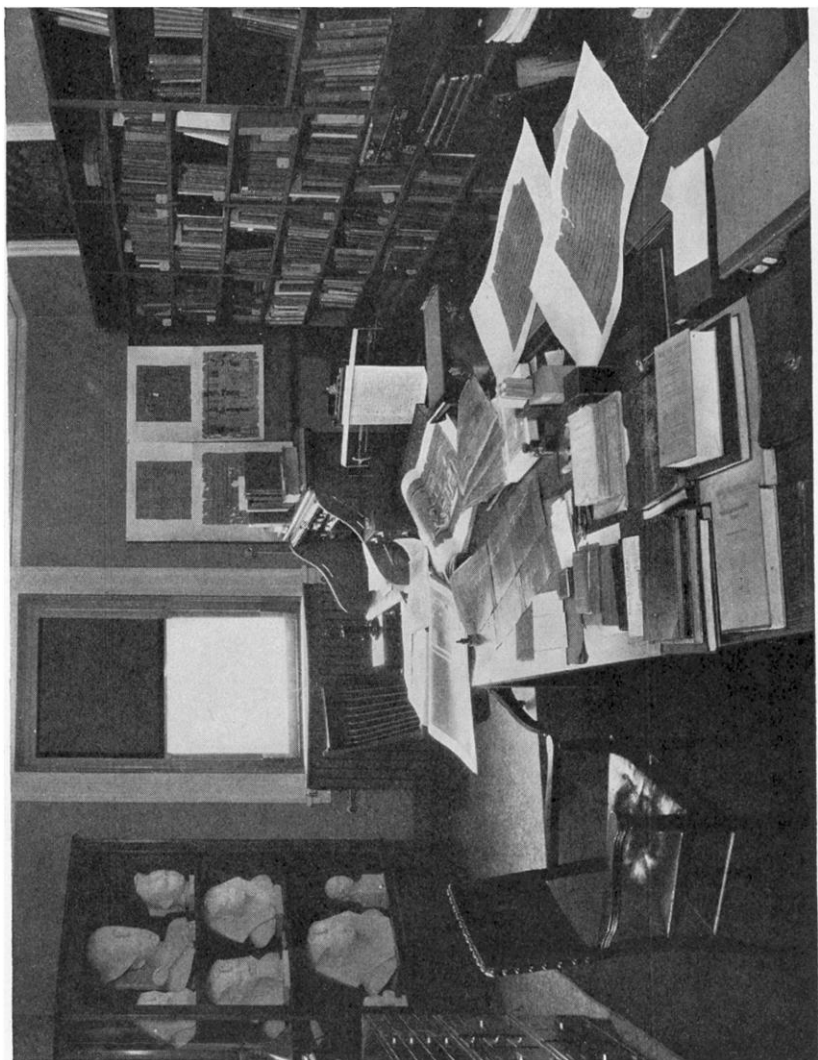


FIG. 60.—DIRECTOR'S OFFICE AND COFFIN TEXT MATERIALS

per cent increase in the manifolding staff, and it is planned that this will be done after July 1, 1922. The present rate of over 100,000 cards a year would then be raised to over 200,000 a year. The gentlemen of the dictionary staff are to be congratulated on this very creditable showing for the first year.

It should be noted that the incorporation of such a large body of documents scattered through many museums and collections, and appearing in different ways in a large number of publications, involves careful records of the documents treated such as will enable the editors to determine identity and avoid duplication. This difficulty is met by an elaborate file of museum numbers, which is being carefully developed by Dr. Maynard. It is shown marked *E* in Figure 58.

At present the resident staff has all the material it can cope with. As the work proceeds, however, and the special tasks and the various blocks of material become more clearly defined, other leading cuneiform scholars of America and Europe will be invited to co-operate. It will be part of the program to be carried out by the Director during his coming journey of 1922-23 to consult with the ablest of our European colleagues with the purpose of securing their co-operation and suggestions. Such co-operation, if so organized as not to swamp the resident staff, will of course materially hasten the completion of the great task. It is as yet hardly possible to hazard a guess which would be of any value, as to the length of time required to complete the Assyrian dictionary; but eight to ten years of such progress as has already been made will probably be sufficient to bring it near completion.

IV. THE COFFIN TEXTS AND EARLY STAGES OF EGYPTIAN RELIGION IN THE FORERUNNERS OF THE "BOOK OF THE DEAD"

Vast masses of ancient documents, like those which will be so much better understood when the Assyrian-Babylonian dictionary is available, fall into groups each of which must be studied by itself as a whole. Among such groups the *religious documents* of the Near Orient are of commanding importance. They disclose to us man's earliest surviving religious notions. The Egyptian *Book of the Dead* has become, in title at least, a household word in the Western World.

The *Book of the Dead*, however, is but a late group of religious documents, compiled out of far older materials similar in character. The existent translations of the *Book of the Dead* are of no value because its older constituent materials have never been completely collected and carefully studied as a whole. The oldest body of literature extant in any language at present is found in a large group of religious texts employed for the benefit of the later pharaohs of the Pyramid age (about 3000–2500 B.C.) and for their exclusive use engraved in their pyramids in the cemetery of Memphis. They are therefore termed the Pyramid Texts. They include literature which has descended from an older period at least as far back as the thirty-fifth century B.C., while some of the Pyramid Texts are a thousand years later than this. With the extension of a blessed destiny to include less exalted folk than the pharaohs, the nobles began to record excerpts from the Pyramid Texts in their tombs. After the twenty-second century B.C. the barons of the Feudal age were more and more interested to have such literature available after death. The popularization of a blessed Hereafter not confined to the pharaohs produced many pictures of happiness for humbler folk in the next world.

Thus there arose a body of religious literature concerning the life beyond the grave, much of which probably owed its origin to the Feudal age, though some of it will have been older. Such texts, then, form a mortuary literature suited to the *people* of the Feudal age. Almost all of this later body of mortuary texts passed over into the *Book of the Dead*, which was therefore put together out of selections from an humbler and more popular mortuary literature. These forerunners of the *Book of the Dead*, together with copious extracts also from the Pyramid Texts (about half from each of the two sources), were written on the inner surfaces of the heavy wooden¹ coffins of the Feudal age (Fig. 61). Every coffin-maker in the towns up and down the Nile Valley was furnished by the priests of his town with a local version of these utterances. Before the coffins were put together the scribes in the makers' employ filled the inside surfaces of the cedar planks with pen-and-ink copies of such texts as he had available (Figs. 62–63). It was commonly done with great

¹ The wood is commonly, though perhaps incorrectly, called cedar.

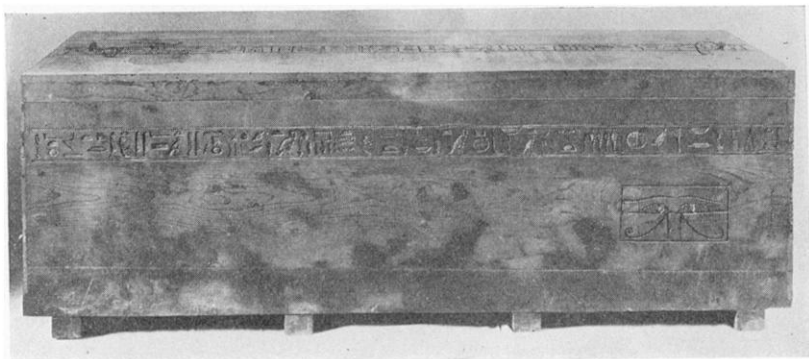


FIG. 61.—WOODEN COFFIN OF THE ROYAL LADY AASHAÏT, DISCOVERED BY THE METROPOLITAN MUSEUM EXPEDITION IN THE ELEVENTH DYNASTY TEMPLE AT DËR EL-BAHRI.

The tomb of this royal lady was discovered in the Metropolitan Museum excavations of 1921 in the line of tombs of the queens of Mentuhotep of the Eleventh Dynasty (2160–2000 B.C.). It is the first royal coffin of the Middle Kingdom as yet found containing Coffin Texts. The body lay with the face immediately behind the eyes, painted at the right end on the outside of the coffin. On the inside, behind these eyes, is another pair, which may be seen in Figure 62. Photograph by the kindness of the Metropolitan Museum and Mr. A. M. Lythgoe.

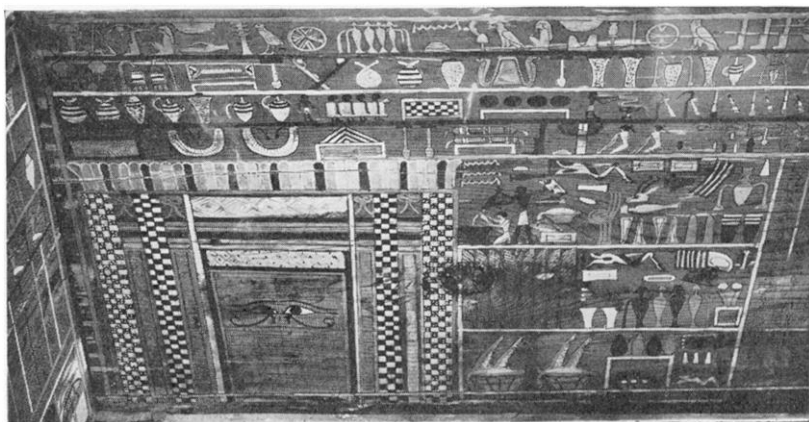


FIG. 62.—PARTIAL VIEW OF THE INSIDE OF THE COFFIN OF THE ROYAL LADY AASHAÏT

The body lay with the face toward the eyes seen here, painted on the inside of the coffin. They are placed across a pair of folding doors in a doorway in the center of a painted house façade, crowned by a palm cornice. The line of hieroglyphs at the top contains a prayer on behalf of the deceased lady. Over the house façade and on its right is painted an array of gifts and offerings, especially food. At the extreme right, in vertical columns, the Coffin Texts begin and on the extreme left they may likewise be seen in vertical columns on the inside of the head of the coffin. The paints and inks employed by the ancient scribe are usually water colors, though sometimes they are done with hot wax (encaustic). Photograph by the kindness of the Metropolitan Museum and Mr. A. M. Lythgoe.



FIG. 63.—PART OF THE INSIDE OF THE COFFIN LID OF THUTNAKHT, AN EGYPTIAN NOBLE OF THE FEUDAL AGE, PROBABLY ABOUT 2000 B.C.

The photograph contains only the upper left-hand corner of the lid when turned on edge. The transverse strip holding the lid together is seen at the left. Above, in large painted hieroglyphs is the end of a prayer on behalf of the deceased noble which affirms that "he will never die." The Coffin Texts below the horizontal line of large hieroglyphs are in vertical lines which have been carefully carved into the wood a very unusual precaution which has made this one of the best preserved Coffin Texts in our possession. Photograph by the kindness of the Boston Museum of Fine Arts and Dr. George A. Reisner.

carelessness and inaccuracy, the effort being to fill up the planks as fast as possible. In the same coffin they might write the same chapter twice or three times and in one instance a chapter is found no less than five times in the same coffin.

Under these circumstances it is quite impossible to make these documents available as scientific materials without the most careful copying and comparison of all the available duplicate texts. They can never be understood in themselves, nor can the *Book of the Dead*, so largely built up out of them, ever be translated with any approximation to accuracy until all these Coffin Texts, as we call them, have been collected and published together as a whole. A very valuable collection taken from the coffins in the Cairo museum has been made and published with his usual care and accuracy by the distinguished Director of the Department of Antiquities in the Egyptian government, M. Pierre Lacau.¹

The importance of these texts in the history of early religion is obvious—not least because it is now quite evident that the moral sensitiveness of the early Egyptian has made his religious documents the earliest literary expression of his ethical consciousness. In the Coffin Texts we find the first outspoken conviction of moral responsibility in the life hereafter. In the evolution of civilization they therefore mark one of the most important stages. While this is neither the place nor the stage of our investigations which would permit anything more than a casual mention of some of the important reasons for the study and publication of these texts, it may be further mentioned that there is found in them also a body of astronomical tables, the earliest such materials available in old Egyptian documents.

¹ Lacau, *Textes religieux, Recueil de Travaux*, Vols. XXVI–XXXIV. Lacau's collection includes eighty-seven so-called "chapters." The character of the Coffin Texts as containing the earliest surviving fragments of the *Book of the Dead* was first recognized by Lepsius, who published the material in the Berlin Collection (Lepsius, *Älteste Texte des Totenbuchs*, Berlin, 1867), and other texts were later published by Birch (*Egyptian Texts . . . from the Coffin of Amamu*, London, 1886). Wilkinson's tracing of an Eleventh Dynasty Coffin Text, now lost, was published by Budge, *Facsimiles of Egyptian Hieratic Papyri in the British Museum*, London, 1910, pls. XXXIX–XLVIII, pp. xxi–xxii. A similar body of texts from the sepulcher of the Middle Kingdom tomb of Harhotep was published by Maspero, *Mémoires de la Mission Arch. au Caire*, I, 136–84. A useful statement of the available materials will be found by Lacau in his *Sarcophages antérieurs au nouvel empire*, I (*Catalogue général . . . du Musée du Caire*, Cairo, 1904, pp. vi f.

The Oriental Institute has, therefore, committed itself to a complete collection and publication of the Coffin Texts, based, as the word "complete" necessarily indicates, upon a study of all the existent materials scattered through the museums of Europe and America, and especially in the National Museum of Egypt at Cairo. In this work the Director will enjoy the able collaboration of the distinguished Egyptologists, Dr. Alan H. Gardiner, of London, and M. Pierre Lacau, as coeditors, besides the assistance of the Oriental Institute staff. According to present plans Dr. Gardiner and the present writer will meet in London this year for the arrangement of final details and on December 15, 1922, the three coeditors will meet in Cairo for a concerted attack upon the great collection in the Cairo museum. It is hoped that the winter of 1922-23 may suffice for copying and arranging in preliminary form the entire body of Cairo materials. The summer of 1923 will then be devoted to various texts in Europe. It is a pleasure to record that every great museum of the world thus far approached has, without hesitation, placed its entire body of such materials at the disposal of the editors of the new project. A number of the more important collections are in the hands of the present writer in the form of photographs, on the basis of which it will be possible to make preliminary manuscript copies which can later be collated with the originals in the various museums.

The plan of operations by which such a complicated body of original documents shall be copied and organized must be carefully defined in the beginning. While it is not necessary to recount all the details of these plans in this review, it may be of interest and perhaps of assistance to other scholars to recite some of its provisions.

Each editor or copyist must prepare all his copies on sheets of a printed page form furnished by the Oriental Institute (see Fig. 64). This page form, in general, furnishes space for four columns of hand-copied text (*a, c, e, g* in Fig. 64). These columns are vertical to correspond with the arrangement of the original texts, which, as is shown in Figure 63, are written in vertical columns. Alongside each column the page form provides a blank space (*b, d, f, h*) for textual notes. These notes are especially necessary owing to the fact that the originals are in a linear cursive form of hieroglyphic which not

infrequently approaches hieratic. The hand-copying on the manuscript page form is therefore a transliteration into hieroglyphic and many textual notes will be concerned with matters of transliteration. The coffins are frequently in damaged condition, which has rendered even the signs in the ancient unfadable carbon ink illegible in many places. There will therefore be numerous uncertain readings and gaps in the text. In order to determine the relative length of these gaps it will be necessary to insert the height of the columns of the original (see bottom of page form, Fig. 63) and the usual height of the more customary signs, such as 𓆎 , as well as the height of the gap, or lacuna, itself. As these will vary from coffin to coffin they must be carefully entered not only for each coffin but for each side of the coffin interior. It will be seen that the top of the page form provides space for a designation of each coffin, the name of the deceased owner who occupied it, the provenience of the coffin itself, its ancient date, the museum where it is now installed, with the museum number, and likewise designations of the exact situations of the different portions of the texts, especially on the inside of the coffin (head, foot, back, front, top, bottom). Each page form so filled up must be numbered consecutively from the beginning and no two sheets will bear the same number. If it happens that the text has been published anywhere, this too will be entered on the proper sheet, together with the parallel texts in the Pyramids, the *Book of the Dead*, or other coffin texts. Spaces for these references are provided at the bottom of the page form (Fig. 64).

When the copyist has finished his copy he signs by his initials in the space provided. All such entries on the page form are to be made with specially prepared "copying" pencils, so that each finished and duly signed sheet may be duplicated on a duplicator carried by the copyists, so that each editor or collaborator may receive a facsimile of every sheet prepared or copied in the course of the Coffin Text enterprise. Such a completed and manifolded sheet will be found in Figure 65.

In addition to the hand copies of the original, every text is also to be photographed and it is needless to add that these photographs will be numbered consecutively and as systematically filed as the hand copies. The photograph will be regarded as furnishing a

[illegible]

FIG. 64.—A BLANK PAGE FORM FOR MANUSCRIPT COPIES OF
THE COFFIN TEXTS. (See p. 310)

The sheets are $8\frac{7}{16} \times 10\frac{7}{8}$ inches.




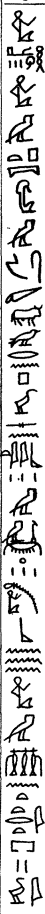
Designation A 1		Outside Inside <input checked="" type="checkbox"/>		Head Foot <input checked="" type="checkbox"/>	Back Front <input checked="" type="checkbox"/>	Top Bottom <input checked="" type="checkbox"/>	Chap. XXXVI Lines 71 to 73	Sheet No. 21 Total No. of Sheets 124
Owner: S. + R.		Provenience: Assut		Date: IX-X		Museum: Cairo		Mus. No. 28118
Text a	Textual Notes b	Text c	Textual Notes d	Text e	Textual Notes f	Text g	Textual Notes h	
	<p>On the beginning of this text of DD chap. 149 R.</p>	 <p>lost.</p> <p>acc.</p> <p>written above only but column arrangement above it is to be read again here.</p> <p>lost.</p>		 <p>duplicate stops here and continues with totally different text</p> <p>same serpent named in Eyr. 401, 438, 679 (a mited) 679.</p> <p>Det.</p>				
Height of lines: 1 1/8 cm. Height of β : 1.2 cm. Photo No.		Copied by _____ from original _____		Collected by _____ with original _____		from photo _____ with photo _____		
Published by Lacau in Rec. de Trav. vol. 30 pp. 194-10		Parallels: Pyr.		; CT Amarna pl. XXV 11, l. 18-20 ; BD				

FIG. 65.—A MANIFOLDED PAGE OF THE MANUSCRIPT COPY OF THE COFFIN TEXTS. (See p. 311)

facsimile copy of the great bulk of the text and, as far as practicable, a complete series of photographs for each coffin should be in the hands of the copyist before he approaches the original. Except in the case of a very illegible coffin the copyist will be able to work at his desk and to make his copy of the great bulk of the text there. He can then collate with the original, giving chief attention, of course, to the broken or illegible passages. Full notes regarding the available photographs must be entered on the page form and of course all measurements mentioned above will have to be made from the original.

The printed page forms are eyeleted for loose-leaf filing, so that the manuscript sheets of each editor will be filed in suitable covers, each coffin preceded by a heavy yellow sheet with index tab bearing the coffin designation.

V. THE TALES OF "KALILA AND DIMNA" AND THE ANCESTRY OF ANIMAL FABLES

While the Coffin Text project is undertaking the recovery of the forerunners of the *Book of the Dead*, the Institute is also engaged in a similar enterprise in the investigation of the ancestry of an ancient work which, next to the Bible, has become the most widely distributed and translated book in the entire history of literature. This book is of unusual interest to us Americans, with whom the animal stories of Uncle Remus have become a household treasury. It is quite evident that this body of negro folk-lore contains fundamental elements which have migrated to America from the slave markets of Africa, having crossed the Dark Continent from the eastern to the western coast. Nothing has been easier than for tales of Arabia and even India to reach the east coast of Africa, and in this way they have eventually migrated to the plantations of our own South. Brer Rabbit thus emerges with an ancient oriental ancestry which probably few of our people have suspected.¹

Over against this southern route through Africa, these animal stories have also reached us by a northern route through England. It is a matter of common information that Shakespeare's knowledge

¹ See Joseph Jacobs, *The Earliest English Version of the Fables of Bidpai*, London, 1888, pp. xliv f.

of Greek and Roman history was drawn from an English translation of Plutarch's *Lives* made by Sir Thomas North, who based his version on the French of Amyot in 1579. Nine years previously, however, North had contributed essentially to the development of early English prose by the publication of a series of animal stories based on Spanish and Italian sources. This book "is the English version of an Italian adaptation of a Spanish translation of a Latin version of a Hebrew translation of an Arabic adaptation of the Pehlevi version of the Indian original."¹ This summary suggests the extraordinary ramifications of the northern line of descent which has brought to us these tales of the ancient Orient in English form.

Tales in which human life and relationships are shifted into the animal world for purposes of caricature, or instructive moralizing, are of enormous age in the ancient Orient. It is of importance to note that a cycle of such tales with delightful illustrations existed in Egypt as far back as the Empire (1580–1150 B.C.). The texts which accompanied these illustrations (Figs. 66–67) have perished, and the illustrations have for the most part never been properly studied and published. Our first example (Fig. 66), from the collections of the New York Historical Society, has been well published and discussed by Dr. Caroline Ransom Williams in the *Bulletin of the New York Historical Society*, 1921, pages 91–99. Late examples of these Egyptian animal tales have survived in Demotic. Spiegelberg has called attention to a drawing of Ramesside age on a flake of limestone in the Berlin museum, showing a lion (or cat?), an ape, and a bird, which he has neatly demonstrated to be an illustration of the animal tales in the "Story of the Sun's Eye" in a Leyden Demotic papyrus (*Orientalistische Literaturzeitung*, 1916, 19, col. 225–28, and Tafel 4). In cuneiform literature of Assyrian age animal tales have also survived. These earlier oriental animal fables already display the "framework," which makes them more attractive to the hearer, and lends weight to the moral lesson to be conveyed.

Such animal tales were introduced into the life-story of the Buddha before the Christian Era, and seemingly by 300 A.D. they were collected in a group which was circulating separately in Sanscrit. From this Sanscrit work a translation into Pehlevi, or Middle

¹ *Ibid.*, p. xi.



FIG. 66.—AN ANCIENT EGYPTIAN ANIMAL FABLE IN PICTURE FORM: FOURTEENTH CENTURY B.C.

The rat, seated at the right, crowned with a lotus flower, carrying a nosegay and about to drink from a festive bowl, is waited upon by a lugubrious-looking cat carrying a fan and a napkin. Between the two figures is a trussed goose. The obvious point lies in the ludicrous inversion of the normal situation.

In the collections of the New York Historical Society; photograph by the kindness of the Society and Dr. Caroline Ransom Williams.

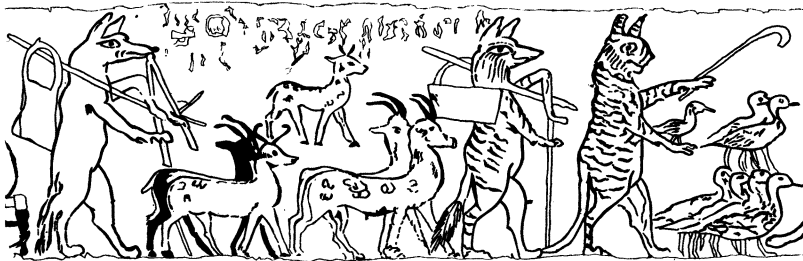


FIG. 67.—ANCIENT EGYPTIAN ANIMAL STORIES IN PICTURE

The cat drives the ducklings to the pond, at the same time carefully carrying a gosling (?) on one paw. Similarly the fox in front and the wolf behind, bearing their shepherds' bags, etc., drive the goats and a kid to the pasture. As in Figure 66, the point lies in the absurd inversion of normal conditions. It is possibly a social satire: those who should protect the people prey upon them. The date is probably about the same as that of Figure 66.

From a papyrus in the British Museum. Lepsius, *Auswahl*, Taf. XXIII.

Persian, appeared, about A.D. 570, and it would seem that an Arab named Abdullah al-Muḳaffa^c rendered this Pehlevi version into Arabic about A.D. 750, under the title *Kalila and Dimna*, the names of the two jackals with whom the tales begin. In addition to real translations there also appeared various paraphrases in verse. After appearing in Syriac and other oriental versions, the stories gradually spread westward, especially through Greek, Old Spanish, and Hebrew versions, the last giving rise to translations in German, Spanish, Czech, Italian, Dutch, Danish, and finally English, as we have seen. In 1888 it was calculated that these animal tales had been translated "into thirty-eight languages, in one hundred and twelwe different versions, which have passed into about 180 editions."¹ These various versions are sometimes disguised under the title, the *Fables of Bidpai*, or the *Fables of Pilpai*.

It is of no little interest that the illustrations which we already find embellishing the Egyptian animal tales, should also have been regarded as an essential part of the East Indian cycle. They are quite commonly found in the Arabic versions surviving at the present day, and here we may see Brer Rabbit exulting over the discomfited Lion who is disclosed head downward at the bottom of the well (Fig. 68) in precisely the same uncomfortable situation into which Uncle Remus tells us Brer Rabbit betrayed him. Similarly the same Arabic manuscript exhibits Brer Fox receiving well-deserved chastisement inflicted by two antelopes (Fig. 69).

From what has been said above it is evident that the history of these tales very much needs investigation. The Indian collection known as *Pañcatantra*, as edited by Professor Franklin Edgerton, is about to be published by the American Oriental Society. When Professor Sprengling approached the writer, therefore, with the hope that the Institute might include this subject also within the scope of its investigations, and proposed the establishment of a final text of the Arabic version, together with a study of the question of its relations to the entire history of such tales, it was an obviously attractive proposal. The enterprise has already been begun, therefore, and the custodians of the leading libraries and collections of the world containing the most important Arabic manuscripts, have

¹ *Ibid.*, pp. xii and xxv.

shown themselves most friendly to the project. The Bodleian Library, the British Museum, the Legatum Warnerianum at Leyden, the Bibliothèque Nationale, and other similar institutions have readily granted permission to have their manuscripts of *Kalila and Dimna* photographed. Nineteen important manuscripts have already been photographed especially for this enterprise and a total of



"*Bimeby Brer Lion git so mad
he jump in de spring headforemos*". "

FIG. 68.—BRER RABBIT TRAPS THE LION IN THE WELL

Illustration of the exploits of the rabbit in an Arabic manuscript probably of the thirteenth century of our era. Nos. 8919-58.

2,990 photographs, representing 5,980 pages of manuscript, have already been incorporated in the archives of the Institute. Professor Sprengling is already busily engaged in the study of these materials, and it is expected that the photographs of the remaining manuscripts will be available as fast as he finds them needful. In this investigation we are again dealing with one of the innumerable lines of culture influence which have passed out of the Orient into the civilization of the Western World. It forms a problem of international literary

relationships of the widest interest and importance, illustrating in its later aspects the same cultural current which first brought civilization out of the Orient into Europe.

VI. THE ARCHIVES

Such enterprises as the Assyrian-Babylonian dictionary, the Coffin Texts, and *Kalila and Dimna*, are *intensive* investigations



FIG. 69.—BRER FOX IN TROUBLE. FROM THE SAME MANUSCRIPT AS FIGURE 68

No. 8919-53.

covering either individual documents or well defined, even though large bodies of material which are of such importance that they deserve highly specialized attention. At the same time the Oriental Institute plans to deal as far as may be with the more comprehensive task of organizing and appraising the remains from the entire group of civilizations of the ancient Near East from which primitive Europe gained the basis for its later civilized development. Such a general organization and appraisal involves nothing less than disengaging, listing, compiling and classifying the available facts and data from the original monuments, published and unpublished, whether

in museums or still standing on the original sites in the Near East, or, finally, as scattered through the enormous body of treatises and monographs published in many different places by modern scholars. In outward form the data thus classified make up a card index, compiled by the methods and to a large extent the personnel of a modern library cataloguing system, supplemented by the



FIG. 70.—THE ARCHIVES OF THE ORIENTAL INSTITUTE:
A CORNER OF THE FILES

No. 9141.

specialized knowledge of the orientalist. This card index is intended to form encyclopedic archives, so organized as to exhibit the leading rubrics of the cultural development of man, especially before the rise of historic Europe, but also later. Ideally conceived, each such rubric, if exhaustively compiled, would contain a complete organization of the discernible relevant facts and materials. For the entire vast range of the ancient civilizations of the Near East, it is hardly conceivable that any organization would be able completely to realize this ideal. The utmost that the Institute can hope to do is roughly

to disengage and classify the more important bodies of facts and materials. Even such a less detailed and more general grouping of the classified materials is as yet nowhere available, and if successfully compiled by the Institute should furnish a unique basis for the production of a comprehensive history of the origins, rise, and early development of civilization such as we do not yet possess. Under the

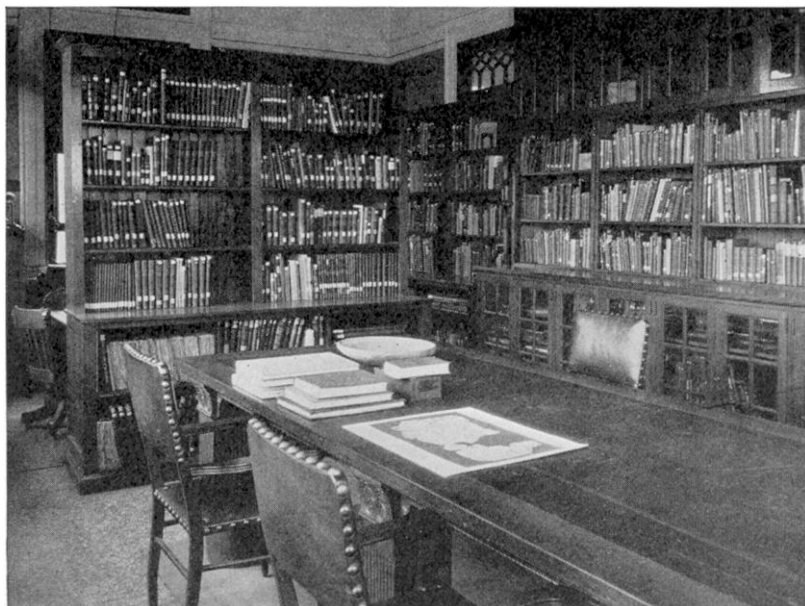


FIG. 71.—LIBRARY OF THE ORIENTAL INSTITUTE AND
SECRETARY'S OFFICE: WHERE THE ARCHIVES
ARE INSTALLED

No. 9137.

immediate charge of Dr. T. G. Allen good progress has been made in the formation of these archives, and over twenty thousand cards carefully typewritten in conformity with the requirements of modern library practice have been filed. The files containing these and related records and materials may be seen in Figures 70 and 71.

VII. CO-OPERATION WITH OTHER INSTITUTIONS

Whenever possible it will be the purpose of the Oriental Institute to co-operate with other institutions in the study and publication of documents in their collections, especially where such co-operation

is practically indispensable. Many institutions are not able to expand the personnel of the administrative staff to cover all the cultures that may be represented in their collections. Again a group of materials may be so large, as in the case of the Coffin Texts scattered throughout the great museums of the world, or the manuscripts of *Kalila and Dimna* in the European and Oriental libraries, that no one institution will feel justified in undertaking to issue a comprehensive publication of the whole body of such materials.

1. *The Edwin Smith Medical Papyrus*.—For such reasons as these the New York Historical Society has intrusted the writer with the publication of a unique medical papyrus acquired by the Society in 1906. This document, of which a specimen page may be found in Figure 72, is of unique interest. It dates from the late seventeenth century B.C., or possibly as late as 1600 B.C. It may be fairly said to be the most important document in the history of science surviving from the pre-Greek age of mankind. The document is a stately roll 4.68 meters (15' 4½") in length with columns eleven or twelve inches high. The important portion of the document is contained in seventeen columns of the front. In these seventeen columns we have a portion of an ancient treatise on surgery and external medicine which began its discussions at the top of the head and, passing downward, presumably continued to the soles of the feet. Unfortunately the beginning is lost and the ancient scribe did not continue his copy further down than the thorax and the beginning of the spine. This document differs strikingly from all the other known Egyptian medical books in that it is not a list of *recipes* but an orderly arrangement of *cases*. It contains a series of forty-eight carefully observed cases, each built up as follows:

- a) *Title*, always beginning: "Instructions for" (name of ailment)
- b) *Examination*, always beginning: "If you examine a man having" (symptoms follow)
- c) *Diagnosis*, always beginning: "You should say concerning him: 'A sufferer with'" (name of trouble follows)
- d) *Verdict*, always one of three:
 1. "An ailment I will treat" (favorable)
 2. "An ailment I will contend with" (doubtful)
 3. "An ailment I will not treat"¹ (unfavorable)
- e) *Treatment*
- f) *Explanatory glosses* (seventy in all).

¹ Grammatically this phrase is not clear in the original; but the character of the cases to which it is appended, and the wording of the phrase, make it evident that it characterizes a case as probably beyond the physician's power to treat successfully.

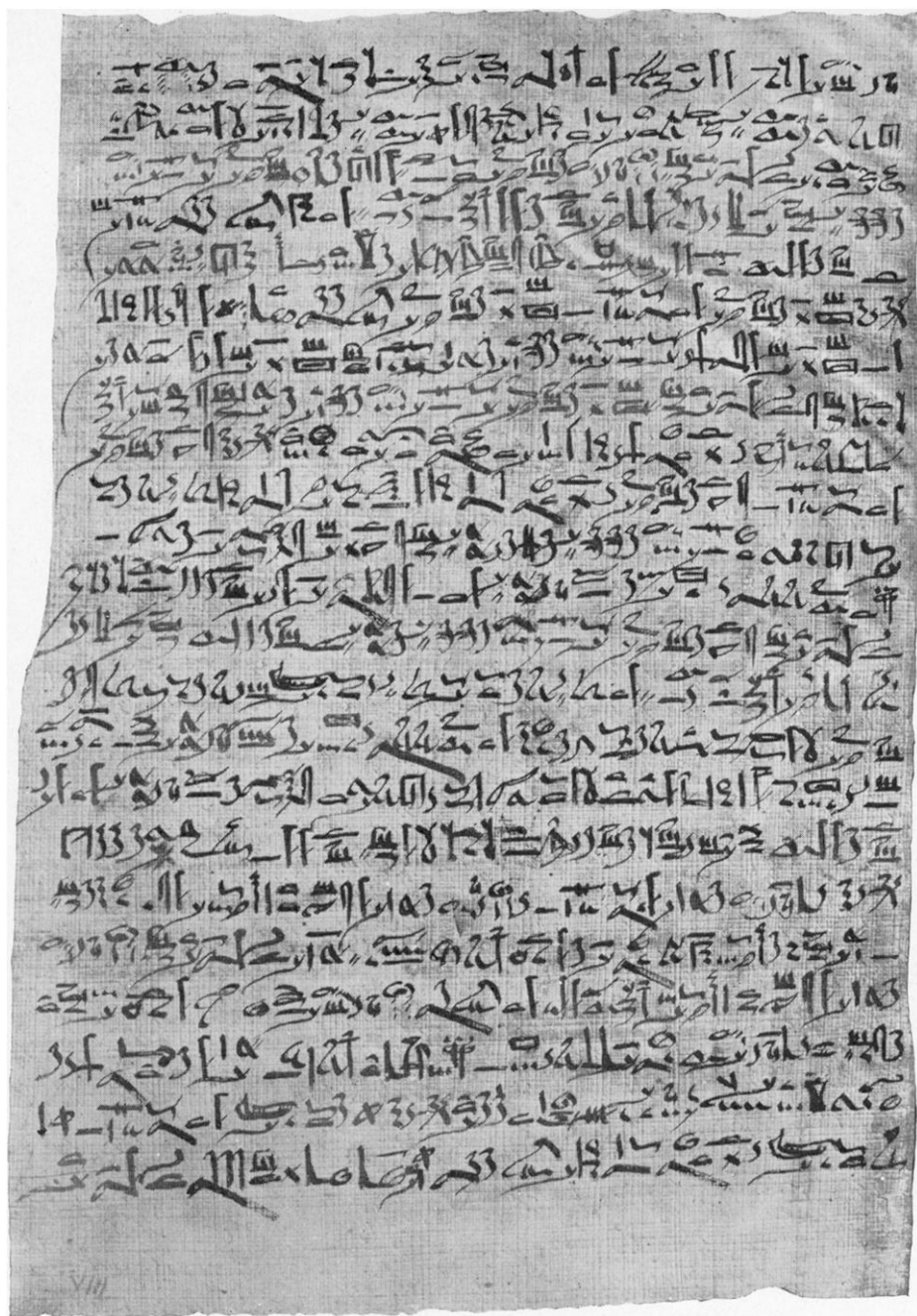


FIG. 72.—A PAGE OF THE EDWIN SMITH PAPYRUS

An Egyptian medical book of the late seventeenth century B.C. in the collections of the New York Historical Society. The oldest medical book in America.

This systematically arranged material, especially in the examinations and the explanatory glosses, reveals a scientific attitude which approaches to a surprising extent that of the modern scientist. The cases are very largely injuries, such as sword cuts in the skull (Figs. 73-74), and as these are due to physical causes quite clear to the physician, they obviously have no connection with the activities



Fig. 73



Fig. 74

FIGS. 73-74.—SWORD CUTS IN EGYPTIAN SKULLS OF A CENTURY OR TWO BEFORE THE CHRISTIAN ERA

In Figure 73 (left) the cut and the resulting fractures caused death; in Figure 74 (right) the art of the surgeon healed the wound and the man survived. Such wounds as these are discussed and the treatment prescribed in the new Edwin Smith Medical Papyrus.

From G. Elliott Smith and F. Wood Jones, *The Archaeological Survey of Nubia* (Report for 1907-8), Vol. II, *The Human Remains*, Plate XLI, Figure 3, and Plate XLIII, Figure 2.

of malignant demons of disease. Thus these cases of organs and tissues injured by intelligible physical agencies form a realm quite uninvaded by magical powers—a realm in which the Egyptian physician gathered the observable facts of anatomy, physiology, surgery, and therapeutic, quite unbiased by his inherited traditions regarding the demoniacal causes of diseases. The document is, therefore, not a treatise on demoniacal medicine and we have the mind of the ancient Egyptian revealed to us here as interested in the observable facts of science for their own sake. This is perfectly

certain in the fatal or hopeless cases discussed—cases in which the physician, with no suggestion that he can save the patient, describes the conditions and is interested in what has happened and what is going on in the organs of his patient.

In the *Bulletin of the New York Historical Society* for April, 1922, the present writer has issued a preliminary account of this extraordinary ancient medical book, which has been dedicated by the Society to the memory of Jean François Champollion in celebration of the one hundredth anniversary of his decipherment of Egyptian hieroglyphic. On returning from the Orient late in 1923 the present writer hopes to furnish the manuscript for final publication of the papyrus with facsimile reproduction of the hieratic text and as full a discussion and translation as may be, which will later be issued by the New York Historical Society.

2. *The Art Institute Egyptian Handbook*.—Another illustration of co-operation between the Oriental Institute and related institutions is the handbook of the Egyptian Collection in the Art Institute of Chicago, which has been in course of preparation by Dr. T. George Allen, the Secretary of the Institute, for a number of years. This handbook is completed and the manuscript is ready for publication.

A strictly scientific catalogue of the Art Institute's Egyptian materials must be left to the future. In the meantime this handbook may serve not only for gallery visitors, but also for scholars in other institutions. Sculpture and coffins are illustrated and described in detail. As for the hundreds of smaller antiquities, representative and unusual specimens are reproduced in small half-tone cuts, while the text brings out the most important facts and also assigns to their proper rubrics nearly all the individual items. The Art Institute expects to publish the book at once.

3. *The early Babylonian records of Gudea of Lagash from the Louvre*.—Professor Ira M. Price has been investigating the cuneiform records of Gudea of Lagash. The Great Cylinder Inscriptions A and B of Gudea were copied from the original clay documents in the Museum of the Louvre, Paris, in the spring of 1898, by the courtesy of M. Leon Heuzey, conservateur, and the kind oversight of M. Fr. Thureau Dangin. In the following year the text and a sign-list, constituting Part I of Volume XV of the *Assyriologische Bibliothek*,

under the editorship of Professors Friedrich Delitzsch and Paul Haupt, appeared in Leipzig. Since that date Professor Price has devoted all his available time to the study of these unique unilingual Sumerian inscriptions.

The results of these studies will appear as Part II of Volume XV of the *Assyriologische Bibliothek* on completion of negotiations for the publication. This Part II will include a transliteration, a translation into English—both of the preceding with comments and notes—a vocabulary, including places and deities, transliteration- and sign-value lists, and corrigenda to the sign-list in Part I; also, as an Appendix, a transliteration and translation of the Statues A to L, their vocabulary to be incorporated in that of Cylinders A and B.

These unique records are of the greatest importance in many respects but especially regarding the matter of early Babylonian foreign connections and such fundamental questions as that of the existence of open sea navigation under the early Babylonian rulers around 2500 B.C.

4. *Prehistoric industries of France*.—It is gratifying to be able to state that, by the cordial co-operation of the French government and the kind interest of M. Salomon Reinach, Director of the National Museums of France, the Institute will shortly be able to instal a representative series of stone implements illustrating the advance of primitive culture in prehistoric France, thus visualizing a cultural sequence in Europe parallel with that of the geological ages in Egypt and Northern Africa. For this collection from the prehistoric industries of France, which is sent to our Institute as a loan for an indefinite period, we are very grateful to the French government and Mr. Reinach.

VIII. PUBLICATIONS

From time to time the Institute will publish purely popular accounts of its work and plans, to be called *Oriental Institute Communications* numbered consecutively in a series, of which this is the first. These brochures are merely popular announcements intended to furnish the friends of the Institute with information regarding the progress of its work and the development of its program, and are, therefore, not primarily intended for scholars, although it is hoped that they also may find in these popular pamphlets some matters

of interest or importance in the progress of oriental research. It is realized that the possession of the records which it has acquired and also that the researches undertaken lay upon the Institute a serious responsibility in the matter of purely technical and scientific publications. It is hoped that this responsibility will be properly met. The Institute expects to publish the monuments in its possession, as well as the results of its researches, as fast as may prove practicable. This scientific and technical series will be known as *Oriental Institute Publications*, numbered consecutively with Roman numerals for the sake of convenient citation. It is suggested that the forms "*O.I.P.* I," "*O.I.P.* II" will be a convenient form of citation, while the *Communications* can be cited as "*O.I.C.*" 1, 2, 3, etc.

The first volume on the program will include the new Sennacherib prism above mentioned (Fig. 50), the gold tablet of Shalmaneser (p. 286), a republication of the Haskell Syllabary, and possibly some other smaller things. The second volume will probably be devoted to the extraordinary Šāliḥīyah paintings (see above, pp. 256 ff.), which ought to be reproduced in color in any approximately adequate publication. The manuscript and plates of this publication will shortly be communicated to the French Academy and then published in preliminary form in *Syria*.

Without projecting here a hard and fast program of publication it may be mentioned that future volumes should also include the Bismāya monuments acquired by the University of Chicago excavations at that place—a group of materials which have long awaited publication. Besides cuneiform documents they include also archaeological materials of the greatest interest and importance in the history of early Babylonian art. The two papyri of the *Book of the Dead*—Papyrus Ryerson and Papyrus Milbank—should also be published, while in the far background the Institute will of course be obliged to undertake the publication of the Assyrian-Babylonian dictionary and the Coffin Texts.

It may be mentioned that the Institute hopes to adopt a medium-sized format for its *Publications*, not too small for plates of sculpture and not too large for volumes consisting chiefly of print. The type-face adopted by the *Journal of Egyptian Archaeology*, about $5\frac{1}{2}$ inches \times 7 inches (exactly $5\frac{9}{16}$ inches \times $7\frac{3}{8}$ inches) or even some-

what smaller, would meet these requirements. Investigations consisting chiefly of print might then be kept uniform with publications of monuments and documents, so that the entire series of *Publications* might thus be kept in one format.

Publications of members of the Department of Oriental Languages which appear in other series or do not fall within the form of the foregoing publication plans will, from time to time, be noticed in these *Communications*. Of this character is a volume just produced by Professor J. M. Powis Smith, who has been working upon a study of the Moral Life of the Hebrews. This study will follow the development of the ethical practices and ideals of the Hebrew people as recorded in the Old Testament. It is an effort to relate the moral principles and usages of the Hebrews to the economic, social, and political life out of which they sprang. The history is worked out from stage to stage in such a way as to show the clearly marked progress in ethical thinking among the Hebrews. This work is practically ready for publication.

While they may not always appear as Institute publications, it is planned that the doctoral dissertations of the graduate students in the Department of Oriental Languages shall be produced in the closest association with the work of the Institute. This is already the fact in the case of two of our graduate students, Mr. Ludlow S. Bull and Mr. William F. Edgerton. While on the first expedition of the Institute, of which he was a member, and on my advice, Mr. Bull purchased in Cairo from a private collection a large Middle Kingdom coffin containing a series of Coffin Texts. These he has been copying and studying in connection with the Institute Coffin Text project and the final publication of this coffin will be correlated with the complete publication of the Coffin Texts as a whole by the Institute. Similarly, Mr. Edgerton has been investigating the subject of boats, boat-building, and navigation in ancient Egypt—an investigation in which both the facilities and the materials of the Institute have been of service. When such investigations are carried to the point of completeness, so that they exhaust the available material, it is hoped that they may be published in connection with the Institute.